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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Research Service  
and The Agricultural Experiment Stations  
of the United States

Quality Characteristics of Cultivars and  
New Germplasm of Wheat Bred and Grown in the  
Western States<sup>1/</sup>

Thirty-Ninth Annual Report  
of the  
Western Wheat Quality Laboratory

1986 Crop <sup>2/</sup>

WRU No. 5802-20050-010

G.L. Rubenthaler, H.C. Jeffers, P.D. Anderson, A.D. Bettge,  
D.A. Engle, and P.A. Sperry

Nov. 1987

- <sup>1/</sup> In cooperation with the Arizona, California, Idaho, Montana, Oregon, Utah, and Washington Agricultural Experiment Stations who developed and grew the experimental wheat selections studied.
- <sup>2/</sup> This is a Progress Report of cooperative investigations of the milling and baking characteristics of current commercial cultivars and new germplasm of wheat grown in the Western states. Interpretation of the data may be changed with further experimentation; therefore, data in this report are not for publication, display, or distribution without prior written approval of the Agricultural Research Service, USDA and the cooperating agencies concerned.





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Western Wheat Quality Laboratory  
1986 Crop

## SUMMARY OF ACCOMPLISHMENTS

Evaluation of end-use milling and baking quality of 2849 experimental wheat germplasm lines ( $F_5$  and later) grown in the western states and harvested as the 1986 crop were made. These included 772 (from WA), 714 (OR), 62 (ID), 956 (CA), 115 from the Western Regional Nurseries, and 230 from commercial and/or other sources. To-date analysis and evaluation has been completed on about 414 selections from the 1987 crop. Criteria used to determine acceptable quality were standardized tests for flour yield, protein, ash and color; cookie diameter; loaf volume and bread crumb grain; dough mixing requirements and water absorption; Japanese sponge cake volume and texture; and Udon noodle yield, texture, color and score. About 24% of these selections were identified as having promising overall quality to fit their market class. Studies included materials from snowmold, foot rot, dwarf smut, yield trials, various crop management studies, and resistance to salinity stress. These represent new advances to have available improved agronomic germplasm with desirable quality for marketing. Results were sent directly to the cooperators, but can be found in the tables of data in Nursery Codes #1 through #99. See the Index of Nurseries (Page v) for nursery titles, locations and breeders.

The milling and baking properties of 892  $F_4$  generation samples from the 1986 crop breeding programs were evaluated. These experimental wheats were crossed to develop resistance to snow mold, foot rot, dwarf smut, rusts, and adaptability to various crop management practices, and represent all classes except durum and SRW. Tests used to characterize end-use quality were flour yield, break flour yield (soft wheats), kernel hardness, flour protein, mixograph, water absorption and dough properties, and alkaline water retention capacity. About 64% (568) were scored as promising to meet the overall quality of their market classes. Summary List of Early Generation Nurseries Evaluated is on page 15. No data is included.

In co-operation with a grant from the PNW Grains Council the milling and baking evaluation were made on commercial composites representing the wheat crop (1986) of WA, OR, and ID. The data was used in their marketing brochures. See Nursery Code number 024.

In cooperation with U.S. Wheat Associates, Inc., we again participated in a Western White Export Cargo analysis project. A set of samples (54) was collected from out-going cargos and is reported as Nursery Code #88. Another group of 55 samples was collected and is reported as Nursery Code #99. The object of the cargo sample project was to follow the end-use qualities of export shipments through the marketing year. Results show a high degree of uniformity.

In cooperation with the PNW Grains Council, 7 advanced experimental wheat selections were pilot milled and sent to a group of collaborators for evaluations. These include 4 mills in Japan, 2 in Korea, 1 in The Philippines, 1 in Morocco, 1 in Egypt, and 11 local milling and baking firms. Results of our analysis are in Nursery Code #89. Final publication of all collaborator results is not complete.

In cooperation with a group from the PNW Grains Council, the milling and baking evaluation was made on commercial companies representing the wheat crop (1985) of WA, OR, and ID. The data was used in basic marketing brochures. See Nursery Code number 084.

In cooperation with V.E. Walter, Associated, Inc., we participated in a Western White Export Cargo analysis project. A set of samples (24) was collected from out-going cargo and reported as Nursery Code 885. Another group of 22 samples was collected and is reported as Nursery Code 886. The object of the cargo sample project was to follow the end-use qualities of export shipments through the marketing year. Results show a high degree of uniformity.



NURS CODE	NURS ID	NURSERY NAME	LOCATION	BREED	NOSAM	BLABNO	SDATE	BRCO	COCO	CACO	NOCO	PBAR
001		IPRI WHEATS	SAN CARLOS, CA	K.D. BEATTY	50	860001	86191	1	0	0	0	9
002		BUTTE CO. REGIONAL	BUTTE CO., CA	L.F. JACKSON	33	860051	86195	1	0	0	0	8
003		SUTTER CO. REGIONAL	SUTTER CO., CA	L.F. JACKSON	33	860084	86195	1	0	0	0	10
004		GENOTYPE X SALINITY X NITROGEN	CORCORAN, CA	C.O. QUALSET	192	860117	86196	1	0	0	0	11
005		VARIETY YIELD TRIAL	CORCORAN, CA	C.O. QUALSET	24	860309	86196	1	0	0	0	11
006		STATE HARD RED SPRING	CONNELL, WA	C.F. KONZAK	42	860333	86209	1	0	0	0	11
007		ADVANCED HARD RED SPRING	CONNELL, WA	C.F. KONZAK	36	860375	86209	1	0	0	0	11
008		SOFT WHITE WINTER WHEAT	POMEROY, WA	C.J. PETERSON	82	860411	86212	0	1	0	0	8
009		HARD RED SPRING WHEAT	ROYAL SLOPE, WA	C.F. KONZAK	36	860493	86213	1	0	0	0	11
010		BREAD WHEAT YIELD TRIAL (619)	SAN JOAQUIN, CA	C.O. QUALSET	75	860529	86213	1	0	0	0	11
011		PRELIM. BREAD WHEAT YIELD TRIAL (618)	SAN JOAQUIN, CA	C.O. QUALSET	51	860604	86213	1	0	0	0	12
012		BREAD WHEAT YIELD TRIAL (610)	DAVIS, CA	C.O. QUALSET	49	860655	86213	1	0	0	0	9
013		PRELIM. BREAD WHEAT YIELD TRIAL (627)	DAVIS, CA	C.O. QUALSET	18	860704	86213	1	0	0	0	10
014		PRELIM. BREAD WHEAT YIELD TRIAL (656)	DAVIS, CA	C.O. QUALSET	30	860722	86213	1	0	0	0	11
015		PRELIM. BREAD WHEAT YIELD TRIAL (616)	DAVIS, CA	C.O. QUALSET	28	860752	86213	1	0	0	0	11
016		PRELIM. BREAD WHEAT YIELD TRIAL (614)	DAVIS, CA	C.O. QUALSET	14	860780	86213	1	0	0	0	11
017		HRW TEST SAMPLES	BENTON CO., OR	R. KAROW	3	860794	86245	1	0	0	0	11
018		PRELIMINARY SWS	PULLMAN, WA	C.F. KONZAK	8	860797	86245	0	1	1	0	9
019		STATE WHITE SPRING	PULLMAN, WA	C.F. KONZAK	21	860805	86245	0	1	1	0	9
020		HRW CROSSING BLOCK NURSERY	PENDLETON, OR	W.E. KRONSTAD	26	860826	86346	1	0	0	0	11
021		NISSHIN MILLS PNW VARIETY/LOCATION STUDY	ID, OR, WA		27	860852	86245	0	1	1	0	8
022		HRS 86 QUALITY/86	PULLMAN, WA	C.F. KONZAK	11	860879	86251	1	0	0	0	9
023		HARD RED SPRING 82 QUALITY/86	PULLMAN, WA	C.F. KONZAK	19	860890	86255	1	0	0	0	9
024		PNWGC CROP QUALITY SURVEY	ID, OR, WA		21	860909	86255	1	1	1	1	9
025		HARD WINTER WHEAT	PULLMAN, WA	G.W. BRUEHL	21	860930	86255	1	0	0	0	11
026		HARD RED SPRING 83 QUALITY 86	PULLMAN, WA	C.F. KONZAK	15	860951	86255	1	0	0	0	10
027		HARD RED SPRING 84 QUALITY 86	PULLMAN, WA	C.F. KONZAK	13	860966	86255	1	0	0	0	10
028		VARIETAL SELECTION TRIALS	PULLMAN, WA	C.F. KONZAK	179	860979	86261	1	0	0	0	9
029		US-CHINA (N) FERTILITY TRIALS	MOSCOW, ID	ZHANG/LIU	24	861158	86275	0	1	0	0	9
030		EXPERIMENTS 6105,6106	TULELAKE, CA	QUALSET/LEVI	22	861182	86287	1	0	0	0	11
031		CHINESE SPRING SUBSTITUTION LINES	TULELAKE, CA	QUALSET/LEVI	34	861204	86287	1	0	0	0	12
032		WESTERN REGIONAL SPRING WHEAT	ID, MT, OR		35	861238	86330	1	1	1	1	11
033		WESTERN REGIONAL HARD RED WINTER	ID, MT, OR		35	861273	86330	1	0	0	0	12
034		WESTERN REGIONAL SOFT WHITE WINTER	ID, OR, WA		36	861308	86330	0	1	1	1	8
035		ANZA X CAJEME 71 GENOTYPE X NITROGEN	DAVIS, CA	C.O. QUALSET	96	861344	86337	1	0	0	0	10
036		ADVANCED SEPTORIA YIELD TRIAL	DAVIS, CA	C.O. QUALSET	6	861440	86337	1	0	0	0	11
037		PRELIMINARY SEPTORIA YIELD TRIAL	DAVIS, CA	C.O. QUALSET	9	861446	86337	1	0	0	0	11
038		ADVANCED BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	10	861455	86337	1	0	0	0	11
039		ADVANCED BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	20	861465	86337	1	0	0	0	11
040		ADVANCED BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	6	861485	86337	1	0	0	0	10
041		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	18	861491	86337	1	0	0	0	11
042		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	17	861509	86337	1	0	0	0	10
043		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	6	861526	86337	1	0	0	0	11
044		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	7	861532	86337	1	0	0	0	11
045		ADVANCED CLUB WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	11	861539	86337	0	1	0	0	9
046		PRELIMINARY CLUB WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	22	861550	86337	0	1	0	0	9
047		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	22	861572	86337	1	0	0	0	11
048		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	6	861594	86337	1	0	0	0	10
049		HRW REPLICATED ADVANCED NURSERY	PENDLETON, OR	W.E. KRONSTAD	17	861600	86346	1	0	0	0	10
050		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	20	861617	86337	1	0	0	0	11



NURS CODE	NURS ID	NURSERY NAME	LOCATION	BREED	NOSAM	BLABNO	SDATE	BRCO	COCO	CACO	NOCO	PBAR
051		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	18	861637	86337	1	0	0	0	10
052		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	6	861655	86337	1	0	0	0	10
053		PRELIMINARY BREAD WHEAT YIELD TRIAL	DAVIS, CA	C.O. QUALSET	18	861661	86337	1	0	0	0	11
054		HARD RED WINTER WHEAT QUALITY COUNCIL	KANSAS		9	861679	86342	1	0	0	0	12
055		SWW PRELIMINARY YIELD TRIAL	CORVALLIS, OR	W.E. KRONSTAD	96	861688	86346	0	1	0	0	8
056		HRW PRELIMINARY YIELD TRIAL	PENDLETON, OR	W.E. KRONSTAD	57	861784	86346	1	0	0	0	10
057		HRW PRELIMINARY YIELD TRIAL	CORVALLIS, OR	W.E. KRONSTAD	31	861841	86346	1	0	0	0	10
058		HRW REPLICATED PRELIMINARY NURSERY	PENDLETON, OR	W.E. KRONSTAD	49	861903	86346	0	1	1	0	11
059		SWW REPLICATED ADVANCED NURSERY	PENDLETON, OR	W.E. KRONSTAD	20	861952	86346	0	1	1	0	10
060		SWW ELITE YIELD TRIAL	PENDLETON, OR	W.E. KRONSTAD	15	861972	86346	1	0	0	0	10
061		HRW ELITE YIELD TRIAL	PULLMAN, WA	W.E. KRONSTAD	6	861987	87029	1	1	1	1	13
062		UNIFINE FLOUR STUDY	CANADA	M.S. KALDY	3	861993	87033	0	1	1	0	9
063		CANADIAN WHEAT										
064		PLANT BREEDERS I SWW	HERMISTON, OR	W. MC PROUD	12	350518	86350	0	1	0	0	9
065		PLANT BREEDERS I SWW	CULDESAC, ID	W. MC PROUD	38	350530	86350	0	1	0	0	11
066		SPAL 1	MADRAS, OR	W.E. KRONSTAD	18	350568	86351	1	0	0	0	12
067		SPAL 2	MADRAS, OR	W.E. KRONSTAD	12	350586	86351	1	0	0	0	13
068		HWS 4	CORVALLIS, OR	W.E. KRONSTAD	14	350598	86351	1	0	0	0	12
069		HRS 1	MADRAS, OR	W.E. KRONSTAD	16	350612	86351	1	0	0	0	11
070		SWS PRELIMINARY	MADRAS, OR	W.E. KRONSTAD	18	350628	86351	0	1	0	0	9
071		HRS ELITE	PENDLETON, OR	W.E. KRONSTAD	18	350646	86353	1	0	0	0	12
072		SWS ELITE	CORVALLIS, OR	W.E. KRONSTAD	9	350664	86353	0	1	1	0	11
073		HRS 2	MADRAS, OR	W.E. KRONSTAD	17	350673	86356	1	0	0	0	10
074		HRS 3	MADRAS, OR	W.E. KRONSTAD	14	350690	86356	1	0	0	0	10
075		HRS 4	CORVALLIS, OR	W.E. KRONSTAD	17	350704	86356	1	0	0	0	13
076		HWS 1	CORVALLIS, OR	W.E. KRONSTAD	19	350721	86356	1	0	0	0	12
077		HWS 2	CORVALLIS, OR	W.E. KRONSTAD	12	350740	86356	1	0	0	0	12
078		HWS 3	CORVALLIS, OR	W.E. KRONSTAD	16	350752	86356	1	0	0	0	12
079		HWS 5	CORVALLIS, OR	W.E. KRONSTAD	8	350768	86356	1	0	0	0	12
080		SPRING X 6	CORVALLIS, OR	W.E. KRONSTAD	10	350776	86356	1	1	0	0	11
081		ADVANCED SPRING WHEAT	PENDLETON, OR	C.R. ROHDE	20	350786	87005	1	1	1	1	10
082		PRELIMINARY WINTER WHEAT	MORO, OR	C.R. ROHDE	26	350806	87005	0	1	0	0	12
083		PRELIMINARY WINTER WHEAT	PENDLETON, OR	C.R. ROHDE	26	350832	87005	0	1	0	0	8
084		IRRIGATED WINTER WHEAT	PENDLETON, OR	C.R. ROHDE	26	350858	87005	0	1	0	0	9
085		HRS ELITE (019 CONT'D)	PENDLETON, OR	W.E. KRONSTAD	2	350884	87012	1	0	0	0	12
086		ADVANCED WINTER WHEAT	PENDLETON/MORO, OR	C.R. ROHDE	39	350886	87014	0	1	1	1	9
087		USDA HARDNESS STUDY (HARDS)			26	350925	87049	1	0	0	0	11
088		U.S. WHEAT ASSOCIATES CARGO SAMPLING IV	PULLMAN, WA		54	350951	87050	0	1	1	1	8
089		PNW COLLABORATIVE STUDY	LIND, WA		10	351005	87062	1	1	1	1	10
090		PRELIMINARY WINTER WHEAT	AUSTRALIA	E. DONALDSON	220	351015	87070	1	1	1	1	10
091		AUSTRALIAN STANDARD WHITE	PULLMAN, WA		1	351235	87071	0	1	1	1	10
092		PNW COLLABORATIVE (BUHLER MILLED)	PULLMAN, WA		10	351236	87100	1	1	1	1	10
093		DRILL STRIPS	PULLMAN, WA		27	351246	87104	1	1	1	1	9
094		HARRINGTON STATE HRW	HARRINGTON, WA	E. DONALDSON	16	351273	87104	1	0	0	0	9
095		ADVANCED HRW I	HARRINGTON, WA	E. DONALDSON	8	351289	87104	1	0	0	0	9
096		ADVANCED HRW II	HARRINGTON, WA	E. DONALDSON	10	351297	87104	1	0	0	0	9
097		ADVANCED HRW III	HARRINGTON, WA	E. DONALDSON	8	351307	87104	1	0	0	0	10
098		WRCR HRS SAMPLES			2	351315	87121	1	0	0	0	10
099		U.S. WHEAT ASSOCIATES CARGO SAMPLING V			55	351317	87180	0	1	1	1	8

SDATE = DATE SAMPLES RECEIVED

BLABNO = BEGINNING LAB NUMBER

KEY : NOSAM = NUMBER OF SAMPLES

PBAR = NURSERY MEAN PROTEIN

NOCO = NOODLE CODE

CACO = CAKE CODE

COCO = COOKIE CODE

BRCO = BREAD CODE

## ABBREVIATION DESCRIPTION

We have implemented a computer program to store, calculate, and retrieve our milling and baking data. The following is a list of abbreviations used as column headings in the following tables of data.

- NURSCO - Nursery Code Number (located upper left corner of table).  
 LABNUM - Laboratory Number (first two digits crop year).  
 VAR - Variety or selection name.  
 IDNO - CI or Selection Identification Number.  
 TWT - Test weight in lbs/bu.  
 FASH - Flour ash percent at 14% moisture basis.  
 FYELD - Percent of flour obtained.  
 MSCOR - Milling score.  
 FPROT - Flour protein percent at 14% moisture basis.  
 FABSC - Farinograph water absorption corrected to 14% moisture basis.  
 FPEAK - Farinograph mixing peak time in minutes.  
 FSTAB - Farinograph stability in minutes.  
 BABS - Bake water absorption at 14% moisture basis.  
 BABSC - Bake absorption corrected to mean protein of nursery.  
 MTIME - Optimum mixing time in minutes.  
 LVOL - Bread loaf volume observed in cc's.  
 LVOLC - Bread loaf volume (cc) corrected for protein to the mean protein of the nursery. (See table 1 or 2)  
 BCRGR - Bread crumb grain rating code. (See following CODE ratings & Meanings.)

CODE	MEANING
1	Excellent (S*)
2	Satisfactory (S)
3	(Q-S)
4	Questionable-Satisfactory (Q-S)
5	(Q- <del>S</del> )
6	Questionable (Q)
7	(Q- <del>Q</del> )
8	Questionable-Unsatisfactory (Q-U)
9	Unsatisfactory (U)

- CODI - Cookie diameter in cm's.  
 CODIC - Cookie diameter (cm) corrected for protein to the mean protein of the nursery. (See table 1 or 2)  
 VISC - Brookfield viscosity (observed)  
 VISCC - Brookfield viscosity corrected for protein to the mean protein of the nursery.  
 CAVOL - Japanese Sponge Cake Volume in cc's.  
 SCSCOR - Sponge cake score (scale 1-100)  
 WTIN - Noodle weight increase (percent).  
 NYELD - Noodle yield.  
 NOSCORE - Noodle score (1-100)  
 MABS - Mixograph absorption at 14% moisture (%).  
 MABSC - Mixograph absorption corrected for protein (%).  
 MTYPE - Mixograph Type - From Mixograph Reference Chart. (See pages 7-8.)

RATE - Overall Rating when used see table 3.  
 RMKS - Remarks.

### Western Wheat Quality Laboratory

#### INTERPRETATION OF DATA

As in the past reports, decisions were based on the results of the tests after adjustment to an average protein content of the nursery using correction factors derived from several years of data on particular varieties and/or classes of wheat. These correction factors and scale for ranking codes can be found in the following tables 1-3.

CORRECTION FACTORS - TABLE 1

VTN	VARIETY	(VC) LOAF VOLUME	(CC) COOKIE
1	Anza	61	0
2	Burt	51	.078
3	Coulee	76	.070
4	Fortuna	64	0
5	Gaines	38	.136
6	Hyslop	0	.137
7	Inia 66	68	0
8	Itana	60	0
9	Kharkof	57	0
10	Luke	0	.085
11	Marfed	61	.098
12	McCall	52	0
13	McDermid	0	.106
14	Moro	0	.094
15	Nugaines	62	.118
16	Omar	0	.083
17	Paha	0	.037
18	Sprague	0	.062
19	Springfield	0	.042
20	Twin	0	.149
21	Yamhill	0	.124
22	Wanser	69	0
23	Wared	62	0

Variety name (VAR) not found or where the value is zero in Table 1, use correction factor for class of sample in Table 2.

VTN = Computer system variety number



CORRECTION FACTORS - TABLE 2

CLASS	(VC) LOAF VOLUME	(CC) COOKIE
SWW	60	.110
SWS	60	.110
CLUB	55	.071
HRW	62	.080
HRS	62	.080
HWW	62	.080
HWS	62	.080

RANKING AND RATING CODES - TABLE 3

CODE BREAD CRUMB GRAIN	MEANING	
1	Excellent	(S*)
2	Satisfactory	(S)
3		(Q-S)
4	Questionable-Satisfactory	(Q-S)
5		(Q-S)
6	Questionable	(Q)
7		(Q-U)
8	Questionable-Unsatisfactory	(Q-U)
9	Unsatisfactory	(U)

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D.A. Engle, and P.A. Sperry 1/, 2/

INTRODUCTION

This is the Thirty-Ninth Annual Report of the Western Wheat Quality Laboratory of cooperative investigations with breeder, geneticists, and pathologists in the seven Western states to evaluate the milling and baking quality characteristics of experimental wheat selections grown and harvested as the 1986 crop. These investigations included several market classes and sub-classes of wheat which are commercially grown in the Pacific Northwest and the Western region and relates to their quality for commercial production and consumer acceptance. These studies deal with the physical-chemical flour properties associated with a wheat's suitability for commercial pastry and bread products.

The nurseries have been arranged in nurseries (Nursery Index in Table of Contents) and the varieties and selections are listed in the tables in order of their assigned Laboratory Number. Mixograms were run on all samples evaluated, but none were reproduced for inclusion in this report. Alternately, each mixogram was characterized by type as described in the Methods Section.

- 1/ Research Food Technologist, Research Food Technologist, Physical Science Technician, Physical Science Technician, Physical Science Technician, and Clerk-Typist, respectively, U.S. Department of Agriculture, Agricultural Research Service, Western Region, assigned to the Western Wheat Quality Laboratory, Wheat Genetics, Quality, Physiology and Disease Unit, Pullman, WA.
- 2/ Credit is due Garrison King, Washington State University Laboratory Technician II for the flour milling and physical-chemical determinations made on early generation material. This work was supported by grant funds from the Washington Wheat Commission.



## METHODS USED BY USDA, WESTERN WHEAT QUALITY LABORATORY

All wheat samples were fumigated when received with 800 cc of methyl bromide/50 gal. drum overnight and then aerated, cleaned, scoured, test weight (1, Method 84-10) determined, sub-sampled for approximate analysis, and placed in the storeroom until experimentally milled by the following methods:

Buhler Milling: All of the 1982 samples of Advanced and Regional Nurseries were milled on a Buhler, pneumatic, laboratory mill. The samples were tempered to a predetermined moisture content ranging from 14.0% to 16.0%, depending on the hardness and the known flour-bolting properties. The harder wheats require the most water. Thus, the grain was conditioned so that the most rapid and most complete separation of endosperm could be made. The temper water contained a wetting agent (.1% Aerosol OT) to hasten moisture penetration and the tempered wheat was allowed to rest for 16-24 hours before milling to permit uniform distribution of the moisture. An additional 0.5% water was added 15-20 minutes prior to milling. The Buhler experimental mill schematic flow is shown in Figure 1.

All six flour streams were combined to make a straight-grade flour. The first and second break and first and second reduction streams were combined for a patent flour. All straight-grade flour was rebolted on a 120 stainless steel wire screen and blended thoroughly.

Flour Yield: The percent of the total products recovered as straight-grade white flour.

Milling Time: The minutes required to mill a 2000-gram sample with the Buhler experimental mill and obtain a normal separation of bran, shorts, and flour. Time is determined by visual observations and adjustments by an experienced miller.

Milling Score: Calculated as follows:

$$100 - [(80 - \text{flour yield}) + 50 (\text{Flour ash} - .30) + .48 (\text{Milling time} - 15) + .5 (65 - \% \text{ long patent}) + .5 (16 - 1\text{st tempering moisture})]$$

Modified Quadurmat Milling Method: The preliminary nurseries were experimentally milled on Modified Quadurmat system (500g). The procedure was described in the 27th Annual Report, Oct. 1976 (pages 1-14). Conversion of the data to give a predicted Buhler flour yield and milling score was done with the following linear equations:

### Flour Yield

Soft wheat ( $y = 14.0671 + .83474X$ )

Hard wheat ( $y = 13.4166 + .83298X$ )

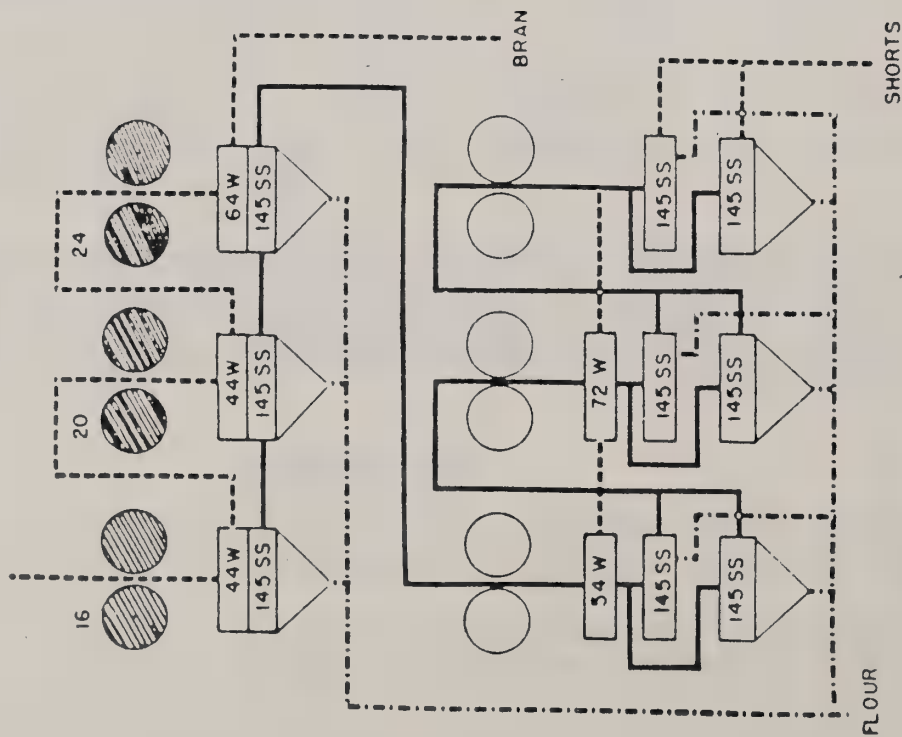
### Milling Score

Soft wheat ( $y = -21.60185 + 1.27367X$ )

Hard wheat ( $y = -3.43818 + 1.0448X$ )

The Modified Procedure is schematically shown in Figure 2. Modifications include those described by Jeffers and Rubenthaler (11).

# Clean Tempered Wheat

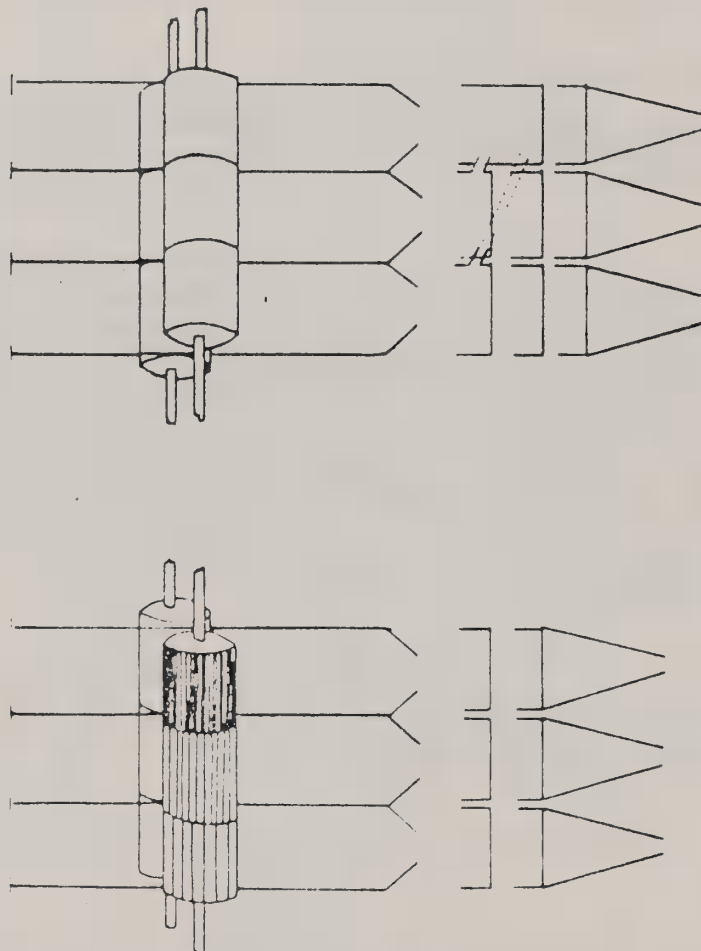


DIAMETER - 6 INCHES

ROLLS: DIFFERENTIAL - 2 TO 1

**SURFACE - 300 SQUARE INCHES**

**BOLTING SURFACE - 288 SQUARE INCHES**

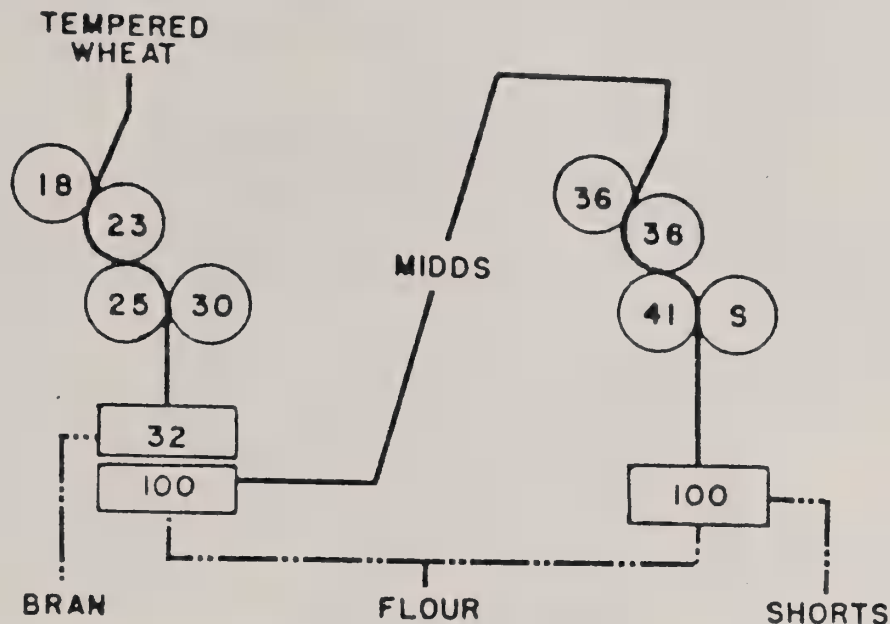


WHEAT TYPE	FEED RATE (G./MIN.)	FLOUR YIELD (%) <sup>a</sup>	FLOUR ASH (%) <sup>b,c</sup>
WHITE CLUB	145 - 160	73 - 75	0.39 - 0.41
HARD RED WINTER	115 - 130	68 - 73	.35 - .42
COMMON (SOFT) WHITE	90 - 120	67 - 72	.35 - .43

ON BASIS TOTAL PRODUCTS RECOVERED FROM MILL  
ASH CONTENT OF STRAIGHT-GRADE FLOUR

Figure 1. Schematic flow of the Buhler experimental mill showing a range of the average feed rates, flour yields, and flour ash of the various classes of wheat. Roll settings are varied for optimum clean-up and reduction of the stock, and feed rates according to the bolting and reduction properties.

# MODIFIED QUADRUMAT SR. MILLING PROCEDURE



## BREAK UNIT

BRABENDER QUADRUMAT JR. WITH  
QUADRUMAT SR BREAK ROLLS

## REDUCTION UNIT

BRABENDER QUADRUMAT SR.  
REDUCTION HEAD

### ROLLS:

DIAMETERS: 2.8 INCHES

#### SPEED:

FAST ROLLS: 1200 RPM

SLOW ROLLS: 560 RPM

DIFFERENTIAL: 2.14 TO 1

### TEMPER:

TO 15% FOR 24 HOURS WITH  
WETTING AGENT

SIFTERS: 8 INCH TYLER TESTING  
SIEVES ON ZELENY SEDIMENTATION  
SIEVE SHAKERS

### SIFTING SCHEDULE:

#### BREAK STOCK:

BRAN: REMOVED AFTER 1 MIN.

MIDDLINGS: REMOVED AFTER AN  
ADDITIONAL 2 MIN. (3 MIN. TOTAL)

REDUCTION STOCK: 3 MIN.

SAMPLE SIZE: 100-250 GRAMS TEMPERED WHEAT  
(HELD CONSTANT WITHIN EACH COMPARISON GROUP)

OUTPUT: 5-7 SAMPLES PER HOUR

Figure 2. Semi micro experimental mill flow with the roll corrugations per inch. The break rolls have corrugation spirals of 1.25, 1.75, 1.88, and 1.25 inch/ft. in progressive order, and the middling reduction roll spirals are 1.25, 1.25, 1.25, and frosted smooth. Roll spacings for first, second and third break are 0.035, 0.0035, and 0.002 inch respectively. The middling rolls are set at 0.0015, 0.0020 and 0.0015 inch respectively.

Semi Micro Flour Quality:\* W heats milled on the semi-micro mill which gave satisfactory flour yields were evaluated by the following tests and all others with unsatisfactory milling properties were discarded: NIR protein, mixograph (3, 9), and AWRC test (14,17) to distinguish whether they fit the sub-class of club or soft common and/or hard wheats.

Micro Milling of Single Plant Selections:\* The 5-10 gm samples of grain were accurately weighed, placed in vials, and water added to bring them to 14% moisture. The tempered grain was milled on the micro mill which consists of two pairs of corrugated rolls and double sifters with 38- and 135-mesh stainless steel screens. The bran over the 38-mesh sifters was evaluated for milling properties by visual examination for the degree of bran clean-up. The throughs of the 135-mesh stainless steel screen, of those samples considered to be good milling types, were examined for flour quality by means of the Modified Micro Sedimentation Method (12). Protein and lysine are determined on these materials by NIR analysis (16). A schematic flow diagram of the micro mill is shown in Figure 3 (2, 13).

Moisture Content of Wheat & Flour: These values have not been given in these reports, but the methods are as follows: The reference test is two grams of ground wheat in an aluminum moisture dish are heated in a forced draft oven for 40 minutes at 140° C., allowed to cool in a desiccator and weighed. Flour Moisture is determined in the same manner except that it is heated only 20 minutes. The NIR (Technicon 400) is routinely used as calibrated to the above method.

Ash of Wheat and of Flour: The ash from a 4-gram sample of wheat meal or flour heated for 15 hours at 550° C. in a muffle furnace. (1, Method 08-01).

Protein of Wheat and Flour: The protein content of the samples was determined by the NIR method, and checked (about 10% of the material) by the Kjeldahl method (1, Method 46-12).

Alkaline Water Retention Capacity (AWRC): The percent increase in weight of 7.5 g flour due to absorption of water from 35 ml of .1 normal  $\text{NaHCO}_3$  solution (17).

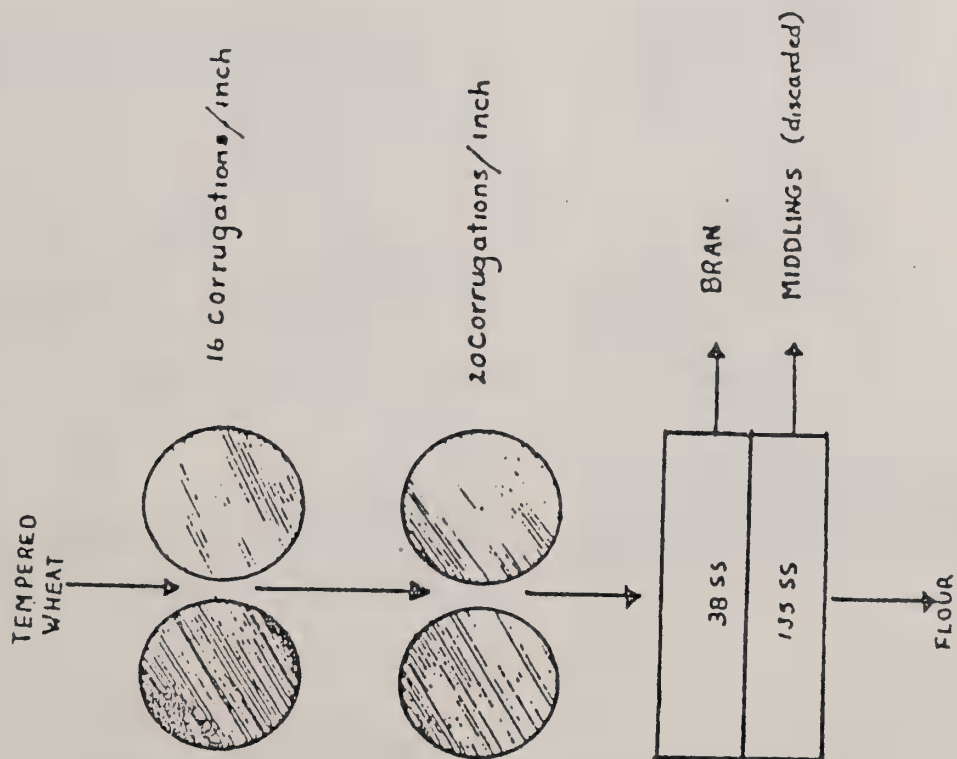
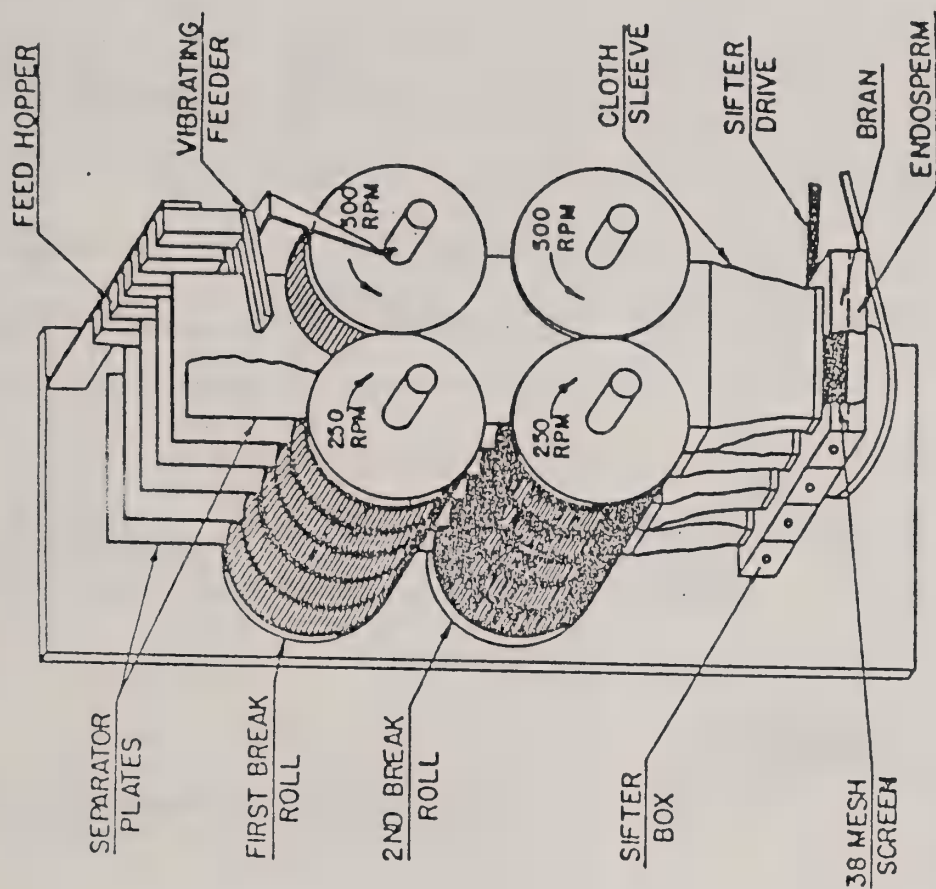
Viscosity: Dial reading x 7.5 of a RVT Brookfield Synchro-Lectric Viscometer fitted with a No. 2 spindle at 50 R.P.M. using a suspension of 20 grams of flour in 100 ml of water and 7 ml of 1 N lactic acid (15).

Mixogram: Used to characterized new selections as to market class and estimate baking properties. The recently developed 10 gm instruments were used and the testing procedure and interpretation of K.F. Finney(9) was followed. To reduce the time and expense involved in reproducing the mixograms a reference chart was developed to characterize each curve as to type ranging from very weak to exceptionally long and strong types. The chart and instructions for its use are found on pages 7 and 8 .

\*Supported by special grant of funds from the Washington Department of Agriculture and the Washington Wheat Commission to permit extensive early generation ( $F_3$ - $F_4$ ) testing.



# MICRO-MILL FLOW



ROLL SPACING 18 .012 INCH  
28 .0025 "

Figure 3. Schematic and flow of the micro experimental mill. Four samples are milled and sifted simultaneously and feed rate is held constant by a vibratory feeder.



## USE OF MIXOGRAM REFERENCE CHART

In addition to determining mixing time for optimum dough development by observation during baking test, mixing time and mixing tolerance, two important baking properties of wheat flour can be determined independently from a mixogram. A mixogram is determined with 10 g of flour and appropriate amount of water to give optimum absorption. It is really nothing more than a recording mixer reflecting the resistance the dough has to be mixed over a period of time. Most mixograms are run either 7 or 8 minutes which is sufficient time for most flours to give a full picture of their mixing time and to show what happens when mixing continues beyond this point (mixing peak) as reflected in the tail of the curve and commonly referred to as tolerance.

Final evaluation must be made with consideration given to the protein content of the flour because of the effect protein content has on the mixing characteristics within the same variety. As protein increases, mixing time will decrease with an apparent increase of tolerance. To illustrate this, compare #1 high (H) with #2 medium (M) and #3 low (L) which are typical mixograms of the club wheat Paha at 12, 9, and 6% protein respectively. Similarly, 2H, 3M, and 4L are typical for Nugaines at these protein levels. Little change can be observed on any wheat above 13.0 or below 7.5% protein.

This chart will be used to identify the curve characteristics which most closely fit the sample and will be reported as numbers 1L, 1M, 1H, etc. through 8H.

# MIXOGRAM REFERENCE CHART<sup>8</sup>

LOW

6-8%

MEDIUM

9-11%

HIGH

11-13%

1

2

3

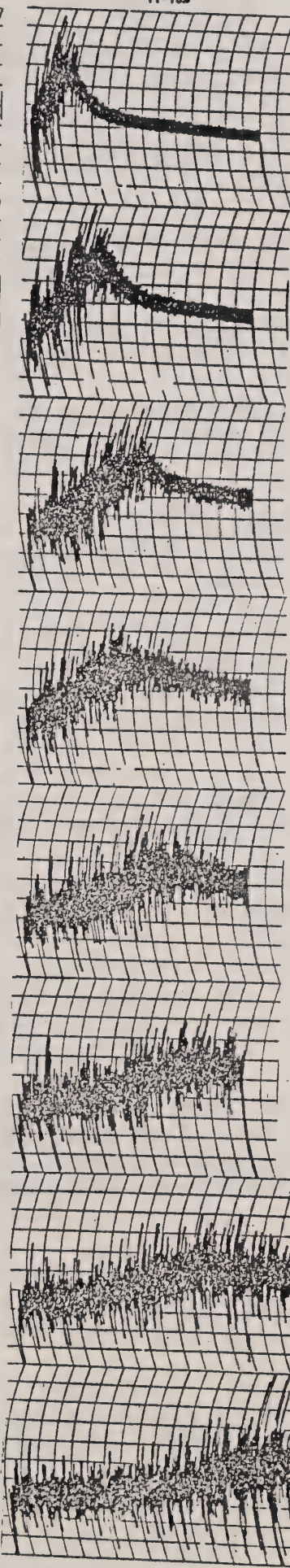
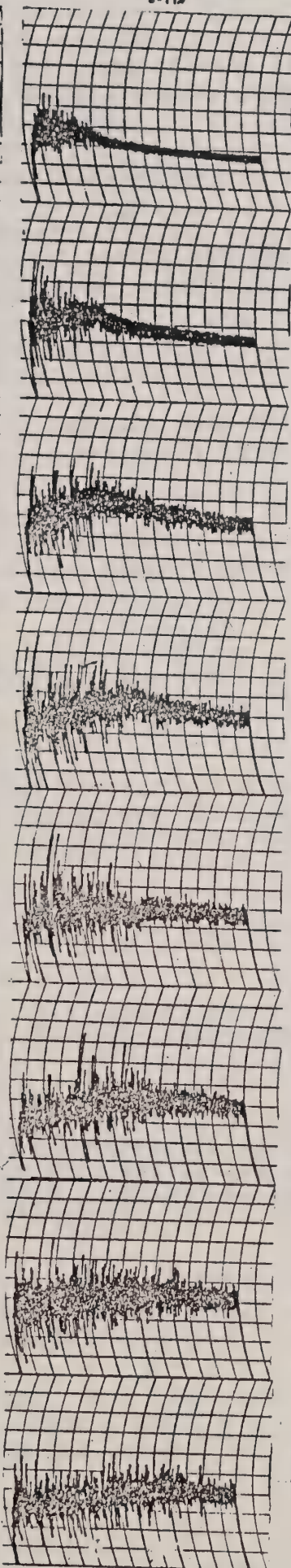
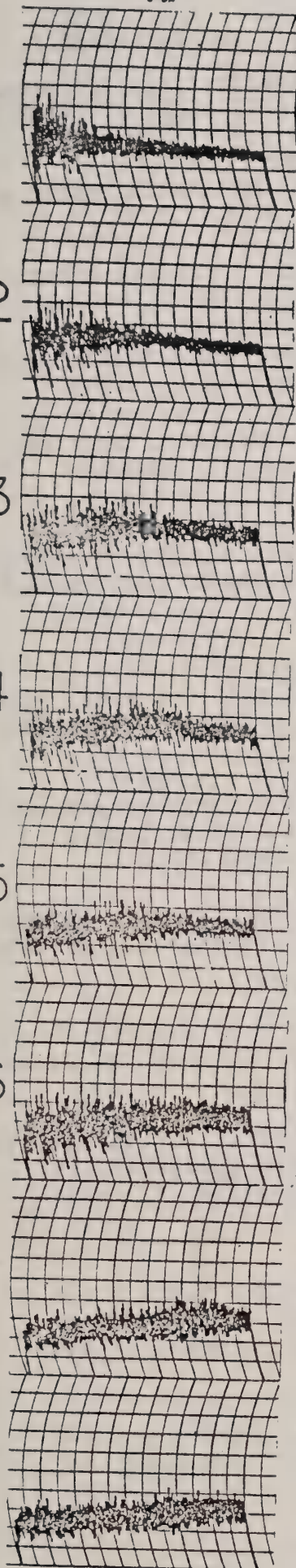
4

5

6

7

8





Cookie Baking: 40 g of flour, micro method, using 25% absorption, 60% sugar, 30% emulsified shortening, 3% dry skim milk, 1%  $\text{NH}_4\text{HCO}_3$ , 1% NaCl, 1%  $\text{NaHCO}_3$ , was employed (8).

Cookie Diameter is the average diameter, in centimeters, of cookies baked on two separate days.

Farinograph: The Farinograph was equipped with a 50-g bowl and the Constant Flour Weight Procedure was employed (1, Method 54-21A).

Farinograph Absorption is the amount of water required to center the highest portion of the Farinograph curve on the 500 unit line.

Peak or Farinograph Mixing Time is the time interval, in minutes, from the first addition of water until the tip of the curve reaches its maximum height.

Stability of Period of Resistance is the number of minutes the top of curve remains above the 500 unit line when the highest portion (peak) is centered on the 500 unit line.

Bread Baking: An optimum absorption, optimum mixing, optimum bromate, 100 g flour and straight dough method using 7.2% yeast, 1 1/2% salt, 6% sugar, 1/4% malt extract, 4% dry milk solids, 65 ppm ascorbic acid, and 3% hydrogenated shortening was employed (5,6,7,10).

Baking Absorption: The amount of water required to make a dough of proper consistency for bread baking when mixed to optimum conditions as judged by an experienced baker using the baking method described above (4).

Mixing Time: Time in minutes required to mix the flour and the other bread dough constituents to the optimum condition as judged by an experienced baker (5).

Optimum Bromate: The amount of potassium bromate required to produce the optimum break, shred, crust, and grain characteristics of the loaf of bread (5).

Flour Color: The slurry method using 20 g of flour, 25 ml of water, stirred for 2 minutes with a glass stirring rod fitted with a 11mm policeman, and allowed to stand for 5 minutes. Reading is taken on an Agtron ( $F_2$ ) calibrated with standard color discs #63 = 0 and #85 = 100.

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12  
PUBLICATIONS  
(Jan. 1 - Dec. 31/87)

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2. Kaldy, M.S. and Rubenthaler, G.L. Milling, Baking, and Physical-Chemical Properties of Selected Soft White Winter and Spring Wheats. Cereal Chem. 64:5. 1987.
3. Rubenthaler, G.L. and Pomeranz, Y. NIR Spectra of HRW Wheats Varying Widely in Protein Content and Quality. Cereal Chem. 64:6. 1987.
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6. Pomeranz, Y., Lookhart, G.L., Rubenthaler, G.L., and Alberts, L. Changes in Gliadin Proteins During Cookie Baking. Abstract #146, Cereal Foods World. 32:9. 1987.
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9. Chen, H., Rubenthaler, G.L., and Schanus, E.G. Effect of Cellulose on the Physical Properties of Gluten. J. Food Sci. IN PRESS.
10. Chen, H., Rubenthaler, G.L., Leung, H.K., and Baranowski, J.D. Chemical, Physical, and Baking Properties of Apple Fiber Compared to Wheat and Oat Bran. Submitted to Cereal Chem.
11. Pumphrey, F.V., and Rubenthaler, G.L. Starch Quality of Pivot Sprinkler Irrigated Soft White Winter Wheat. Submitted to Cereal Chem. as "NOTE".

## INVITED TECHNICAL PRESENTATIONS

Rubenthaler, G.L., 1987

Presented a lecture to Food Science, WSU, "Cereal Products Class", on "Noodles and Noodle Making", March 25, 1987.

Participated in a USDA/OICD People's Republic of China Exchange Program by giving five-one day seminars on "Wheat Quality Characteristics", in the PRC, March 29-April 18, 1987.

Presented a talk and tour of the Laboratory to Washington Dept. of Agriculture, Grain Inspection Managers, May 14, 1987.

Presented a seminar "Soft White and Club Wheat Attributes" and tour of the lab to Korean Milling Team (USWA), May 21, 1987.

Chaired a Symposium "Agricultural and Industrial Applications of Near IR Analysis" at the 42nd NW Regional American Association of Chemists, Bellingham, WA, June 17-19, 1987.

Presented lecture (3 hr.) "Soft White Wheat Milling and Baking Qualities", at International Grains Program, Manhattan, KS, July 31, 1987.

Presented lecture (3 hr.) "Soft White Wheat Milling and Baking Qualities" at International Grains Program, Manhattan, KS Aug. 7, 1987.

Presented seminar "Role of the USDA, Western Wheat Quality Lab.", to Wheat Export Trade Education Committee (WETEC), U.S. Legislative Team, Aug. 19, 1987.

Presented a talk "Club Wheat Characteristics" to Korean Flour Milling Team, Aug. 20, 1987.

Presented a talk, "Soft White Wheat Quality and Variety Development" to South Asian Buyers Mission (Malaysia/Thailand), Sept. 21, 1987.

Presented a talk "1987 Soft White Wheat Crop Quality" to the PNW Section of AACC Annual Meeting, Coeur d'Alene, ID, Oct. 23, 1987.

Presented a talk "China Market Potential and Opportunities" to North Idaho Foundation Seed Association, Moscow, ID, Nov. 13, 1987.

Presented a talk "Determining Strength of Flour by Mixograph" at Con Agra Flour Milling Co., Omaha, NE, Nov. 25, 1987.

Presented a report "1987 Harvest Survey Results" to Pacific Northwest Grains Council Advisory Board, Portland, OR, Dec. 2, 1987.

Western Wheat Quality Laboratory  
1986 Crop

VISITORS

The Western Wheat Quality Laboratory Staff was pleased to have had the opportunity to meet, discuss, and give tours of our facilities with many visitors this past year. Several of these people were wheat breeders, grain buyers, flour millers, students and various government officials with an interest in wheat quality. The following is a list, not all inclusive, of those who visited our facilities:

U.S. Wheat Workers	12
Nabisco	2
Oregon Wheat Growers League	8
Congressional Legislators' Assistants Team	10
<u>Foreign:</u>	
Korea	8
Mexico	5
People's Republic of China	4
Malaysia	3
Pakistan	2
Australia	2
New Zealand	1
England	1
Chile	1
Singapore	1
Thailand	1

EARLY GENERATION NURSERIES  
1986 Crop

NURSERY	LOCATION	BREEDER	CLASS	NUMBER TESTED	NUMBER PROMISING
SNGREDQL/86	Pullman	Konzak/Davis	H&SRW	167	89
Red Qual/87	Pullman	Konzak/Davis	HRS	35	21
SNGPLWHQ/86	Pullman	Davis/Konzak	SWS	68	29
Early Generation Selections	Pendleton	C.R. Rhode	SWW	293	203
87 REA Advanced Commons	Pullman	R.E. Allan	SWW	30	25
87 REA Advanced Clubs	Pullman	R.E. Allan	Club	79	46
87 REA Semidwarf Burt Iso's	Pullman	R.E. Allan	HWW	34	12
87 REA Daws 2* /WC 87/861-890	Pullman	R.E. Allan	SWW	30	19
87 REA Restorers + Smut Resist.	Pullman	R.E. Allan	SWW	30	16
87 REA Advanced Foot Rot	Pullman	R.E. Allan	SWW	52	36
SWW 86	Pullman, Pomeroy, Ritzville, Walla Walla, Cunningham	C.J. Peterson	SWW	46	6
87 REA Advanced Foot Rot	Pullman	R.E. Allan	SWW	25	14



LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI
860001	YECORA ROJO	C1017414	HRS	65.2	71.2	0.50	80.7	9.2	58.8	8M	
860002		3010	HRS	65.2	69.2	0.45	81.3	7.9	61.4	6M	
860003		3024A	HRS	65.2	70.2	0.46	81.6	8.7	58.0	3M	
860004		3024B	HWS	65.6	70.5	0.49	80.7	7.2	58.8	3L	
860005		3029	HRS	64.0	66.5	0.45	78.5	8.4	59.4	3M	
860006		6/3030	HRS	65.6	70.0	0.43	83.0	8.3	60.5	4M	
860007		3038	SWS	63.6	68.3	0.46	78.9	8.0	52.6	2L	9.19
860008		6/3040	SWS	64.0	71.8	0.48	81.9	8.1	53.4	3L	9.02
860009		3053	HWS	64.0	71.2	0.46	82.0	9.0	56.0	2M	
860010		3060	HRS	59.6	69.3	0.43	82.2	8.6	59.7	4M	
860011		3066	HRS	65.2	68.7	0.43	81.9	9.0	58.4	2M	
860012		3067	HRS	63.6	70.5	0.42	84.2	7.6	58.8	2L	
860013		5/3071	SWS	65.2	73.4	0.41	88.2	9.2	52.8	2M	9.02
860014		3072	HWS	66.4	70.9	0.39	86.1	10.0	61.2	3M	
860015		3073	HRS	64.0	70.2	0.54	77.7	8.5	58.5	3M	
860016		3081	HRS	64.4	70.6	0.44	83.4	8.7	58.3	2L	
860017		3084	HWS	65.6	67.5	0.45	79.5	7.9	60.4	4L	
860018		3090	HWS	64.0	68.1	0.47	79.2	7.3	59.3	4L	
860019		3098	HWS	64.8	69.0	0.46	80.2	7.8	60.1	4L	
860020		3099	HWS	64.8	69.2	0.45	81.0	8.2	61.3	4L	
860021		6/3100	HRS	65.6	69.7	0.40	84.5	9.3	60.7	6M	
860022		6/3102	HWS	65.2	69.3	0.44	81.7	8.1	61.1	4M	
860023		6/3104	HWS	65.2	69.2	0.44	81.9	9.2	62.4	6M	
860024		3105	HWS	64.4	72.7	0.40	87.4	9.4	61.1	3M	
860025		3110	HRS	65.2	68.1	0.42	81.7	8.6	61.9	6M	
860026		3114	SWS	63.2	68.5	0.49	76.8	9.1	54.2	3M	9.22
860027		3117	HRS	65.2	69.9	0.42	83.5	9.3	60.4	3M	
860028		3118	SWS	63.2	69.1	0.48	78.2	9.1	54.3	3M	8.91
860029		6/3120	SWS	63.6	71.0	0.45	83.1	9.2	54.2	3M	9.34
860030		3121	HWS	66.0	68.6	0.44	80.9	7.7	60.6	4L	
860031		5/3123	HRS	66.0	72.1	0.42	85.8	9.8	59.4	6M	
860032		6/3124	HRS	66.0	71.3	0.41	85.7	9.6	60.8	4M	
860033		6/3126	SWS	67.2	69.9	0.39	85.4	10.2	55.8	2M	9.05
860034		3129	HWS	65.2	69.6	0.43	82.7	8.4	59.6	4M	
860035		6/3130	HRS	66.0	69.8	0.41	84.1	9.0	60.1	6M	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 1

SAN CARLOS, CA

K.D. BEATTY

LABNUM	VARIETY	IDNO	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/		3/			4/		
8600001	YECORA ROJO	C1017414	HRS		60.7	60.5	4.8	740	728	4	6 Q-FYELD P-LVOL&BCRGR
8600002		3010	HRS		62.0	63.1	4.0	675	743	6	
8600003		3024A	HRS				No Baking/VP	Mixograph	properties		
8600004		3024B	HWS				No Baking/VP	Mixograph	properties		VP-FYELD
8600005		3029	HRS				No Baking/VP	Mixograph	properties		
8600006		3030	HRS		61.5	62.2	3.4	710	753	5	Q-Bread Baking
8600007		3038	SWS	9.08							P-FYELD
8600008		3040	SWS	8.93							
8600009		3053	HWS		61.0	61.4	3.3	715	740	5	Q-FYELD
8600010		3060	HRS				No Baking/VP	Mixograph	properties		
8600011		3066	HRS				No Baking/VP	Mixograph	properties		Q-FYELD
8600012		3067	HRS				No Baking/VP	Mixograph	properties		Q-FYELD
8600013		3071	SWS	9.05							
8600014		3072	HWS		63.9	62.9	2.1	800	738	6	P-MTIME&BCRGR
8600015		3073	HRS				No Baking/VP	Mixograph	properties		P-MTIME
8600016		3081	HRS				No Baking/VP	Mixograph	properties		P-MTIME
8600017		3084	HWS				No Baking/VP	Mixograph	properties		P-MTIME&FYELD
8600018		3090	HWS				No Baking/VP	Mixograph	properties		P-MTIME&FYELD
8600019		3098	HWS				No Baking/VP	Mixograph	properties		P-MTIME&FYELD
8600020		3099	HWS				No Baking/VP	Mixograph	properties		P-MTIME&FYELD
8600021		3100	HRS		62.7	62.4	3.4	765	746	4	Q-FYELD
8600022		3102	HWS		61.9	62.8	3.1	740	796	5	Q-FYELD&BCRGR(White)
8600023		3104	HWS		64.3	64.1	3.2	760	748	4	Q-FYELD (White)
8600024		3105	HWS				No Baking/VP	Mixograph	properties		
8600025		3110	HRS		63.2	63.6	3.6	730	755	5	P-FYELD
8600026		3114	SWS	9.24							P-FYELD
8600027		3117	HRS				No Baking/VP	Mixograph	properties		P-FYELD
8600028		3118	SWS	8.92							P-FYELD
8600029		3120	SWS	9.36							
8600030		3121	HWS				No Baking/VP	Mixograph	properties		P-FYELD
8600031		3123	HRS		61.9	61.1	3.3	825	775	4	
8600032		3124	HRS		63.1	62.5	2.9	825	788	5	Q-BCRGR
8600033		3126	SWS	9.18							
8600034		3129	HWS		60.7	61.3	2.9	755	792	6	P-BCRGR
8600035		3130	HRS		61.8	61.8	3.4	720	720	4	





NURSCO 1

SAN CARLOS, CA

K.D. BEATTY

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI
						<u>1/</u>		<u>1/</u>	<u>3/</u>		
860036		3131	HWS	63.6	72.1	0.43	85.2	9.8	59.6	2M	
860037		3133	HWS	64.4	72.0	0.40	86.6	9.3	59.9	4M	
860038		3134	HWS	66.0	70.2	0.45	82.2	7.9	59.7	4M	
860039		3135	HWS	64.8	69.6	0.45	81.6	7.6	58.6	4L	
860040		<u>6/3138</u>	SWS	63.2	69.6	0.47	79.5	8.3	55.0	2M	9.20
860041		<u>6/3139</u>	SWS	64.0	69.9	0.45	81.5	8.6	55.5	3M	9.01
860042		3141	SWS	65.6	70.3	0.42	83.6	9.3	55.6	3M	8.89
860043		3142	HWS	64.4	72.0	0.49	81.2	8.8	56.6	3M	
860044		3143	HWS	64.8	71.5	0.44	83.4	8.9	55.7	2M	
860045		<u>6/3144</u>	SWS	66.4	72.2	0.38	88.7	8.9	56.0	4L	9.00
860046		<u>5/3146</u>	SWS	66.0	70.7	0.41	85.0	9.2	55.9	2M	9.25
860047		<u>6/3149</u>	SWS	64.4	68.7	0.39	83.6	10.0	55.0	2M	9.15
860048		<u>6/3150</u>	HRS	66.0	69.7	0.40	84.5	9.1	62.4	7M	
860049		3151	HWS	60.8	69.7	0.52	77.2	9.0	57.0	4M	
860050		<u>6/3152</u>	SWS	65.6	69.6	0.40	84.2	9.0	55.2	2M	8.85



NURSCO 1

SAN CARLOS, CA

K.D. BEATTY

LABNUM	VARIETY	IDNO	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/		3/			4/		
860036		3131	HWS				No Baking/VP	Mixograph	Properties		
860037		3133	HWS				No Baking/VP	Mixograph	Properties		
860038		3134	HWS				No Baking/VP	Mixograph	Properties		
860039		3135	HWS				No Baking/VP	Mixograph	Properties		
860040		3138	SWS	9.12			No Baking/VP	Mixograph	Properties		Q-FYELD
860041		3139	SWS	8.97			No Baking/VP	Mixograph	Properties		Q-FYELD
860042		3141	SWS	8.92			No Baking/VP	Mixograph	Properties		Q-FYELD
860043		3142	HWS				No Baking/VP	Mixograph	Properties		
860044		3143	HWS				No Baking/VP	Mixograph	Properties		
860045		3144	SWS	8.99			No Baking/VP	Mixograph	Properties		
860046		3146	SWS	9.27			No Baking/VP	Mixograph	Properties		
860047		3149	SWS	9.26			No Baking/VP	Mixograph	Properties		
860048		3150	HRS		64.2	64.1	3.4	750	744	5	Q-FYELD Q-BCRGR
860049		3151	HWS				No Baking/VP	Mixograph	Properties		
860050		3152	SWS	8.85			No Baking/VP	Mixograph	Properties		Q-CODI

## COMMENTS:

This nursery was too low in protein for good meaningful differentiation of bread baking properties, averaging 9% flour protein. New selections were judged in comparison to Yecora Rojo which was poorer than normal in bread crumb grain. Note the "class" column for color and hardness; several of the selections are both soft and hard whites. Hardness determined by NIR. Soft textured wheats were tested for cookie spread. Several of the hard wheat selections were not test baked because of the very weak mixograph curves.

Q = Questionable; VP = Very Poor; P = Poor





NURSCO 2

BUTTE CO., CA

L. F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860051	ANZA (C1015284)	20	HRS	64.8	71.3	0.37	87.5	6.9	57.9	2M
860052	YECORA ROJO (C1017414)	112	HRS	66.2	71.0	0.39	86.4	9.2	58.8	8M
860053	PHOENIX (C1017962)	221	HWS	65.1	72.6	0.37	88.9	7.4	58.1	2L
860054	YOLO	353	HRS	64.5	72.3	0.37	88.4	6.5	56.5	2L
860055	KLASIC (PI486139)	415	HWM	66.6	73.7	0.38	89.3	8.8	59.2	8M
860056	WESTBRED 911 (PI483456)	521	HRS	65.0	69.1	0.39	84.1	7.2	60.1	4L
860057	PROBRAND 775	538	HRS	64.9	73.0	0.39	88.4	7.7	59.9	6L
860058	TADINIA	544	HRS	63.7	73.2	0.35	90.7	6.9	56.3	2L
860059	S8330014 ((TZPP*IRN46-CIA/PRT)NAC)	619	HRS	65.2	72.3	0.39	87.7	8.4	61.7	7M
860060	S8330022 (JUP-BJY)	620	HRS	65.8	69.0	0.38	84.5	7.8	61.8	6L
860061	UC628 (TZPP*ANZA2)	628	HRS	66.0	71.5	0.39	86.9	7.8	59.2	3M
860062	UC633 (BB S'*ANZA)	633	HRS	64.2	75.1	0.42	89.0	6.5	55.6	2L
860063	UC635 ((INIA*CNO)CAL)*ANZA)	635	HRS	66.0	72.0	0.42	85.7	7.8	57.9	3L
860064	CM16076 (YRR S'*MFN)	638	HRS	64.8	73.8	0.39	89.3	7.1	56.0	8L
860065	BH100	662	HRS	64.3	70.4	0.40	84.8	7.5	58.0	3L
860066	BH202	664	HRS	63.7	70.3	0.41	84.2	7.0	58.1	2L
860067	BH205	666	HRS	63.3	67.3	0.39	82.5	7.8	57.5	8L
860068	S8330501 (IPRI 83501)	671	HRS	65.1	69.5	0.42	82.9	8.1	57.2	3L
860069	P982-38 (906R-ALPHA79)	672	HRS	64.5	68.3	0.41	82.5	7.0	59.8	4L
860070	CALGENE 1551	680	HWS	64.4	68.8	0.50	77.9	7.7	60.1	8M
860071	UC681 (TADORNA*INIA66)	681	HRS	64.2	70.1	0.38	85.9	8.0	59.2	4L
860072	UC682 (TADORNA*INIA66)	682	HRS	64.4	69.4	0.37	85.6	7.6	59.2	6L
860073	UC683 ((TADORNA*INIA66)*ANZA)	683	HRS	64.7	66.1	0.45	78.0	5.6	61.2	2L
860074	VEERY S' (KVZ/BUHO S'//KAL/BB)	684	HRS	65.1	68.7	0.43	81.7	8.5	57.8	3L
860075	UC702 (J1*SEL44)	702	HRS	66.3	69.2	0.39	84.4	8.4	58.3	3M
860076	UC703 (PORTOLA*166)	703	HRS	67.0	69.6	0.36	86.5	9.1	59.1	8M
860077	SER182 (KVZ/BUHO S'//KAL/BB)	705	HWS	63.7	66.2	0.48	76.6	6.4	57.6	2L
860078	P983-102 (906R A-POP78*UPPER MW HRS)	715	HRS	67.0	69.7	0.37	86.0	8.5	60.0	4M
860079	P983-69 (EARLY HRS POP80)	716	HRS	66.3	71.0	0.38	86.5	9.4	59.4	8M
860080	P983-13 (EARLY HRS POP81)	717	HRS	65.1	70.4	0.38	86.1	8.9	59.1	4M
860081	NK83S203 (CJ/PSR//SX/YR)	718	HRS	64.6	69.5	0.43	82.2	8.1	61.2	4L
860082	NK83S216 (NR/2/PSR//EMU S')	719	HRS	65.9	69.8	0.43	82.6	7.3	60.3	8L
860083	NK83S609 (SX/YR/4/POLK/ROQ/3/PRODAX/...	720	HRS	65.5	71.2	0.41	85.4	7.6	58.6	7L

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 2

BUTTE CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
860051	ANZA (C1015284)	20	HRS	57.5	58.6	1.0	500	568	9	
860052	YECORA ROJO (C1017414)	112	HRS	61.7	60.5	3.5	700	626	4	
860053	PHOENIX (C1017962)	221	HWS	59.2	59.8	2.0	600	637	9	
860054	YOLO	353	HRS	56.7	58.2	2.2	560	653	9	
860055	KLASIC (P1486139)	415	HW	61.7	60.9	4.6	735	685	4	
860056	WESTBRED 911 (P1483456)	521	HRS	61.0	61.8	2.6	585	635	8	
860057	PROBRAND 775	538	HRS	61.3	61.6	3.5	660	679	5	
860058	TADINIA	544	HRS	55.9	57.0	1.3	560	628	8	
860059	S8330014 ((TZPP*IRN46-CIA/PRT)NAC)	619	HRS	63.8	63.4	3.6	675	650	5 = to Yecora R & Klasic	
860060	S8330022 (JUP-BJY)	620	HRS	63.3	63.5	4.1	610	622	8 P-FYELD&BCRGR	
860061	UC628 (TZPP*ANZA2)	628	HRS				Not baked/VP	Mixograph	properties	
860062	UC633 (BB S'*ANZA)	633	HRS				Not baked/VP	Mixograph	properties	
860063	UC635 (((INIA*CNOCAL)*ANZA)	635	HRS				Not baked/VP	Mixograph	properties	
860064	CM16076 (YRR S'*MFN)	638	HRS				Not baked/VP	Mixograph	properties	
860065	BH100	662	HRS				Not baked/VP	Mixograph	properties	
860066	BH202	664	HRS				Not baked/VP	Mixograph	properties	
860067	BH205	666	HRS				Not baked/VP	Mixograph	properties	
860068	S8330501 (IPR1 83501)	671	HRS				Not baked/VP	Mixograph	properties	
860069	P982-38 (906R-ALPHA79)	672	HRS			4.6	625	644	7 P-FYELD&BCRGR	
860070	CALGENE 1551	680	HWS	61.5	61.8					
860071	UC681 (TADORNA*INIA66)	681	HRS				Not baked/VP	Mixograph	properties	
860072	UC682 (TADORNA*INIA66)	682	HRS				Not baked/VP	Mixograph	properties	
860073	UC683 ((TADORNA*INIA66)*ANZA)	683	HRS				Not baked/VP	Mixograph	properties	
860074	VEERY S' (KVZ/BUHO S'//KAL/BB)	684	HRS				Not baked/VP	Mixograph	properties	P-FYELD P-BCRGR
860075	UC702 (J1*SEL44)	702	HRS	60.4	60.0	2.8	675	650	6	
860076	UC703 (PORTOLA*166)	703	HRS				Not baked/VP	Mixograph	properties	
860077	SER182 (KVZ/BUHO S'//KAL/BB)	705	HWS				Not baked/VP	Mixograph	properties	P-FYELD P-MTME&BCRGR
860078	P983-102 (906R A-POP78*UPPER MW HRS)	715	HRS	62.2	61.7	2.5	590	559	8	
860079	P983-69 (EARLY HRS POP80)	716	HRS	64.0	62.6	3.7	735	648	6	
860080	P983-13 (EARLY HRS POP81)	717	HRS	61.7	60.8	3.4	640	584	8	
860081	NK83S203 (CJ/PSR//SX/YR)	718	HRS				Not baked/VP	Mixograph	properties	
860082	NK83S216 (NR/2/PSR//EMU S')	719	HRS				Not baked/VP	Mixograph	Properties	
860083	NK83S609 (SX/YR/4/POLK/ROQ/3/PRODAX/...	720	HRS				Not baked/VP	Mixograph	Properties	

COMMENTS: Protein level of this nursery is too low for meaningful differentiation among cultivars and experimental selections. See "Remarks" for apparent weakness as compared to the check varieties. NURSCO 003 from Sutter County has higher protein levels.

P = Poor





NURSCO 3

SUTTER CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860084	ANZA (C1015284)	20	HRS	65.9	70.2	0.34	87.7	8.7	60.2	2M
860085	YECORA ROJO (C1017414)	112	HRS	63.1	71.3	0.39	86.7	10.7	62.0	5H
860086	PHOENIX (C1017962)	221	HWS	64.8	70.9	0.37	87.3	9.1	61.1	2M
860087	YOLO	353	HRS	65.0	71.6	0.34	89.2	8.6	59.1	3M
860088	KLASIC(P1486139)	415	HWW	63.1	71.5	0.36	88.5	10.6	61.5	8M
860089	WESTBRED 911 (P1483456)	521	HRS	65.1	68.3	0.33	86.4	10.1	62.2	7M
860090	PROBRAND 775	538	HRS	58.3	69.9	0.40	84.4	11.7	64.2	5H
860091	TADINIA	544	IIRS	65.8	72.6	0.30	92.5	10.7	61.1	2M
860092	S8330014 ((TZPP*IRN46-CIA/PRT)NAC	5/619	HRS	65.2	71.9	0.31	91.3	11.1	67.4	5H
860093	S8330022 (JUP-BJY)	620	HRS	65.1	68.8	0.34	86.5	10.4	64.6	6M
860094	UC628 (TZPP*ANZA2)	628	HRS	65.3	70.1	0.29	90.3	10.9	64.6	1H
860095	UC633 (BB S'*ANZA)	633	HRS	64.8	70.6	0.34	88.6	8.5	58.7	3M
860096	UC635 (((INIA*CNO)CAL)*ANZA)	635	HRS	65.0	71.9	0.37	88.2	10.5	61.2	3M
860097	CM16076 (YRR S'*MFN)	6/638	HRS	66.2	74.5	0.33	92.7	10.0	59.8	8M
860098	BH100	662	HRS	65.2	70.9	0.33	89.0	10.2	61.5	2H
860099	BH202	664	HRS	65.4	71.5	0.35	88.6	9.5	61.5	2M
860100	BH205	666	HRS	64.5	69.4	0.33	87.5	10.7	60.7	4M
860101	S8330501 (IPRI 83501)	671	HRS	64.4	68.8	0.35	85.9	10.6	60.9	3M
860102	P982-38 (906R-ALPHA79)	672	HRS	65.1	67.8	0.34	85.2	10.0	63.2	4H
860103	CALGENE 1551	680	HWS	63.1	69.4	0.40	83.9	10.3	64.9	5H
860104	UC681 (TADORNA*INIA66)	681	HRS	65.3	69.3	0.32	87.8	11.0	61.3	2H
860105	UC682 (TADORNA*INIA66)	682	HRS	65.3	67.9	0.30	87.5	11.1	61.0	2H
860106	UC683 ((TADORNA*INIA66)*ANZA	683	HRS	65.6	66.9	0.36	83.6	8.2	61.1	3M
860107	VEERY S' (KVZ/BUHO S'//KAL/BB)	684	HRS	64.6	69.1	0.35	86.3	11.6	59.3	2H
860108	UC702 (J1*SEL44)	702	HRS	65.5	68.5	0.29	88.6	10.4	61.8	2H
860109	UC703 (PORTOLA*166R)	703	HRS	66.5	69.8	0.31	88.9	11.8	65.0	5H
860110	SER182 (KVZ/BUHO S'//KALL/BB)	705	HWS	63.7	68.5	0.38	83.8	9.8	61.5	3H
860111	P983-102 (906R A-POP78*UPPER MW HRS)	6/715	HRS	66.5	69.7	0.31	88.7	10.3	64.7	4H
860112	P983-69 (EARLY HRS POP80)	6/716	HRS	63.0	70.7	0.38	86.4	11.2	64.1	5H
860113	P983-13 (EARLY HRS POP81)	717	HRS	59.0	68.4	0.42	82.1	11.9	65.3	6H
860114	NK83S203 (CJ/PSR//SX/YR)	718	HRS	63.3	70.0	0.42	83.4	10.6	65.3	3H
860115	NK83S216 (NR/2/PSR//EMU S')	719	HRS	66.2	69.2	0.38	84.7	9.9	64.8	6H
860116	NK83S609 (SX/YR/4/POLK/ROQ/3/PRODAX/...	720	HRS	65.9	71.8	0.36	88.6	9.6	61.6	8M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 3

SUTTER CO., CA

L.F. JACKSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860084	ANZA (C1015284)	20	HRS	59.6	60.9	1.3	675	756	8 P-LVOL&BCRGR	
860085	YECORA ROJO (C1017414)	112	HRS	64.4	63.7	4.1	905	862	2	
860086	PHOENIX (C1017962)	221	HWS	60.9	61.8	1.5	765	821	8 P-LVOL&BCRGR	
860087	YOLO	353	HRS	59.4	60.8	2.0	785	872	9 P-LVOL&BCRGR	
860088	KLASIC(P1486139)	415	HW	63.8	63.2	5.1	970	933	2	
860089	WESTBRED 911 (P1483456)	521	HRS	65.0	64.9	3.2	815	809	5 P-LVOL&BCRGR	
860090	PROBRAND 775	538	HRS	67.6	65.9	4.2	970	865	2	
860091	TADINIA	544	HRS	62.5	61.8	1.3	805	762	9 P-LVOL&BCRGR	
860092	S8330014 ((TZPP*IRN46-CIA/PRT)NAC	619	HRS	70.2	69.1	3.4	910	842	2	
860093	S8330022 (JUP-BJY)	620	HRS	66.7	66.3	3.4	825	800	6 P-FYELD&BCRGR	
860094	UC628 (TZPP*ANZA2)	628	HRS				No Baking/VP Mixograph		properties	
860095	UC633 (BB S'*ANZA)	633	HRS				No Baking/VP Mixograph		properties	
860096	UC635 (((INIA*CNOCAL)*ANZA)	635	HRS	62.4	61.9	2.0	870	839	5 P-MTIME&BCRGR	
860097	CM16076 (YRR S'*MFN)	638	HRS	61.5	61.5	4.0	875	875	4 Q-BCRGR	
860098	BH100	662	HRS				No Baking/VP Mixograph		properties	
860099	BH202	664	HRS				No Baking/VP Mixograph		properties	
860100	BH205	666	HRS				No Baking/VP Mixograph		properties	
860101	S8330501 (IPRI 83501)	671	HRS	63.1	62.4	2.9	905	862	6 Q-FYELD P-BCRGR	
860102	P982-38 (906R-ALPHA79)	672	HRS	64.9	64.9	3.2	No Baking/VP Mixograph		properties P-FYELD	
860103	CALGENE 1551	680	HWS	66.9	66.6	4.0	785	785	6 P-FYELD, LVOL&BCRGR	
860104	UC681 (TADORNA*INIA66)	681	HRS	62.5	61.5	1.8	915	896	3 Q-FYELD&BCRGR	
860105	UC682 (TADORNA*INIA66)	682	HRS				805	743	8 P-MTIME, LVOL&BCRGR	
860106	UC683 ((TADORNA*INIA66)*ANZA	683	HRS	63.0	64.8	2.2	No Baking/VP Mixograph		properties P-MTIME&FYELD	
860107	VEERY S' (KVZ/BUHO S'//KAL/BB)	684	HRS	64.1	62.5	2.2	750	862	8 VP-FYELD, MTIME&BCRGR	
860108	UC702 (J1*SEL44)	702	HRS	68.4	68.0	5.0	880	781	5 P-MTIME, LVOL&BCRGR	
860109	UC703 (PORTOLA*166R)	703	HRS				920	895	5 P-BCRGR	
860110	SER182 (KVZ/BUHO S'//KALL/BB)	705	HWS	63.0	61.2	2.5	740	628	8 VP-LVOL&BCRGR	
860111	P983-102 (906R A-POP78*UPPER MW HRS)	715	HRS	66.5	66.7	4.0	820	832	6 P-FYELD, LVOL&BCRGR	
860112	P983-69 (EARLY HRS POP80)	716	HRS	67.2	66.9	3.9	935	916	3 Q-BCRGR	
860113	P983-13 (EARLY HRS POP81)	717	HRS	69.0	67.8	5.4	940	866	2	
860114	NK83S203 (CJ/PSR//SX/YR)	718	HRS	67.4	65.5	2.5	860	742	8 P-FYELD, MTIME&BCRGR	
860115	NK83S216 (NR/2/PSR//EMU S')	719	HRS	66.1	65.5	5.3	800	763	8 P-LVOL&BCRGR	
860116	NK83S609 (SX/YR/4/POLK/ROQ/3/PRODAX/...	720	HRS	62.9	63.0	3.7	785	791	6 P-LVOL&BCRGR	

COMMENTS: See "Footnotes" for the selections which have promise in good overall quality characteristics. The "Remarks" column identifies the major deficiencies. The most common is the short dough mixing, low loaf volume, and heavy crumb structure in bread making. Many are as poor in baking properties as Anza, Yolo, and Phoenix.

P = Poor; VP= Very Poor; Q = Questionable



1. *Chlorophyll a* (chl *a*)

2. *Chlorophyll b* (chl *b*)

3. *Carotenoids* (car)

4. *Phaeophytin a* (pha *a*)

5. *Phaeophytin b* (pha *b*)

6. *Phaeoerythrin* (phe)

7. *Phaeoxanthophyll* (phx)

8. *Phaeo-*fucoxanthin** (phf)

9. *Phaeo-*peridinin** (php)

10. *Phaeo-*zeaxanthin** (phz)

11. *Phaeo-*violaxanthin** (phv)

12. *Phaeo-*antheraxanthin** (phn)

13. *Phaeo-*zeaxanthin** (phz)

14. *Phaeo-*violaxanthin** (phv)

15. *Phaeo-*antheraxanthin** (phn)

16. *Phaeo-*zeaxanthin** (phz)

17. *Phaeo-*violaxanthin** (phv)

18. *Phaeo-*antheraxanthin** (phn)

19. *Phaeo-*zeaxanthin** (phz)

20. *Phaeo-*violaxanthin** (phv)

21. *Phaeo-*antheraxanthin** (phn)

22. *Phaeo-*zeaxanthin** (phz)

23. *Phaeo-*violaxanthin** (phv)

24. *Phaeo-*antheraxanthin** (phn)

25. *Phaeo-*zeaxanthin** (phz)

26. *Phaeo-*violaxanthin** (phv)

27. *Phaeo-*antheraxanthin** (phn)

28. *Phaeo-*zeaxanthin** (phz)

29. *Phaeo-*violaxanthin** (phv)

30. *Phaeo-*antheraxanthin** (phn)

31. *Phaeo-*zeaxanthin** (phz)

32. *Phaeo-*violaxanthin** (phv)

33. *Phaeo-*antheraxanthin** (phn)

34. *Phaeo-*zeaxanthin** (phz)

35. *Phaeo-*violaxanthin** (phv)

GENOTYPE X SALINITY X NITROGEN

NURSCO 4

CORCORAN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860117	ANZA X CAJEME 71	5/602/01S1N1*	HRS	61.9	73.9	0.39	89.1	10.6	61.4	6M
860118	ANZA X CAJEME 71	602/02S1N1	HRS	62.5	69.3	0.39	84.5	11.6	61.4	4H
860119	ANZA X CAJEME 71	5/602/03S1N1	HRS	62.8	71.2	0.40	85.7	12.1	60.9	4H
860120	ANZA X CAJEME 71	602/04S1N1	HRS	60.6	71.1	0.39	86.3	11.0	60.2	3M
860121	ANZA X CAJEME 71	602/05S1N1	HRS	63.4	71.8	0.37	88.1	11.1	60.1	2H
860122	ANZA X CAJEME 71	602/06S1N1	HRS	62.3	70.4	0.37	86.6	11.2	60.6	2H
860123	ANZA X CAJEME 71	5/602/07S1N1	HRS	61.4	71.9	0.38	87.7	11.1	61.1	3H
860124	ANZA X CAJEME 71	602/08S1N1	HRS	61.2	70.5	0.38	86.2	10.7	60.3	3H
860125	ANZA X CAJEME 71	5/602/09S1N1	HRS	62.8	72.2	0.40	87.1	11.1	61.3	4H
860126	ANZA X CAJEME 71	602/10S1N1	HRS	62.2	69.9	0.42	83.5	11.3	62.0	5H
860127	ANZA X CAJEME 71	602/11S1N1	HRS	61.0	68.6	0.41	82.6	9.6	61.9	8M
860128	ANZA X CAJEME 71	5/602/12S1N1	HRS	60.7	72.4	0.39	87.4	11.4	61.4	4H
860129	ANZA X CAJEME 71	602/13S1N1	HRS	60.3	71.9	0.39	87.1	11.1	60.3	3M
860130	ANZA X CAJEME 71	602/14S1N1	HRS	60.4	71.8	0.39	87.2	11.0	60.4	3M
860131	ANZA X CAJEME 71	602/15S1N1	HRS	61.5	70.2	0.39	85.4	12.8	61.4	2H
860132	ANZA X CAJEME 71	602/16S1N1	HRS	63.4	71.6	0.35	89.0	11.7	60.2	6M
860133	ANZA X CAJEME 71	5/602/17S1N1	HRS	60.3	70.7	0.40	85.1	10.4	61.3	8M
860134	ANZA X CAJEME 71	602/18S1N1	HRS	61.9	68.5	0.41	82.7	10.7	61.8	3H
860135	ANZA X CAJEME 71	602/19S1N1	HRS	62.6	69.7	0.42	83.3	11.8	61.7	2H
860136	ANZA (C1015284)	602/20S1N1	HRS	62.2	71.9	0.38	87.7	10.4	60.6	3M
860137	ANZA X CAJEME 71	602/21S1N1	HRS	58.3	68.5	0.39	83.5	11.0	62.4	8M
860138	ANZA X CAJEME 71	602/22S1N1	HRS	59.9	69.5	0.39	84.6	11.0	60.9	8M
860139	ANZA X CAJEME 71	602/23S1N1	HRS	59.3	66.4	0.47	77.3	10.3	63.2	8M
860140	ANZA X CAJEME 71	602/24S1N1	HRS	61.3	70.1	0.44	82.6	10.9	63.3	2H
860141	ANZA X CAJEME 71	602/25S1N1	HRS	58.2	70.0	0.41	84.0	11.0	61.5	3M
860142	ANZA X CAJEME 71	602/26S1N1	HRS	60.9	69.9	0.40	84.5	11.3	61.5	4M
860143	ANZA X CAJEME 71	5/602/27S1N1	HRS	58.4	69.9	0.39	84.8	11.3	60.4	4M
860144	ANZA X CAJEME 71	602/28S1N1	HRS	59.8	69.8	0.30	89.5	11.2	61.3	6M
860145	ANZA X CAJEME 71	602/29S1N1	HRS	62.8	69.0	0.38	84.5	9.9	61.9	8M
860146	YECORA ROJO (C1017414)	602/30S1N1	HRS	63.1	70.1	0.41	84.0	11.9	63.6	6H
860147	ANZA X CAJEME 71	602/31S1N1	HRS	63.2	68.5	0.43	81.4	12.2	63.1	3H
860148	ANZA X CAJEME 71	602/32S1N1	HRS	64.1	70.3	0.42	83.7	11.4	61.0	3M
860149	ANZA X CAJEME 71	602/33S1N1	HRS	61.9	67.8	0.39	83.0	10.4	62.7	4M
860150	ANZA X CAJEME 71	602/34S1N1	HRS	61.8	68.0	0.42	81.3	10.8	61.9	3H
860151	ANZA X CAJEME 71	5/602/35S1N1	HRS	59.7	70.1	0.39	85.1	10.1	61.1	6M

\*Treatment Code: S1 = Fresh Water; S2 = Saline Water (4500 ppm); N1 = 160 lb/N/A at planting; N2 = 160 lb/N/A at planting plus 100 lb at heading.

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

6/ Promising Overall Quality Characteristics.

3/ Observed Values Corrected to 11% Protein.



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LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860117	ANZA X CAJEME 71	602/01S1N1	HRS	62.7	63.1	3.7	890	915	4	Q-BCRGR
860118	ANZA X CAJEME 71	602/02S1N1	HRS	63.7	63.1	3.9	885	848	4	Q-FYELD, LVOL&BCRGR
860119	ANZA X CAJEME 71	602/03S1N1	HRS	63.7	62.6	3.3	915	847	2	Q-LVOL
860120	ANZA X CAJEME 71	602/04S1N1	HRS	61.4	61.4	2.5	920	920	6	P-BCRGR
860121	ANZA X CAJEME 71	602/05S1N1	HRS	60.9	60.8	1.4	855	849	6	P-BCRGR&MTIME
860122	ANZA X CAJEME 71	602/06S1N1	HRS	61.5	61.3	1.7	900	888	2	P-MTIME
860123	ANZA X CAJEME 71	602/07S1N1	HRS	62.4	62.3	2.5	925	919	4	
860124	ANZA X CAJEME 71	602/08S1N1	HRS	61.7	62.0	2.4	810	829	4	P-LVOL Q-BCRGR
860125	ANZA X CAJEME 71	602/09S1N1	HRS	63.1	63.0	3.5	865	859	2	
860126	ANZA X CAJEME 71	602/10S1N1	HRS	64.0	63.7	4.6	890	871	3	Q-FYELD
860127	ANZA X CAJEME 71	602/11S1N1	HRS	62.2	63.6	4.6	795	882	6	P-FYELD&BCRGR
860128	ANZA X CAJEME 71	602/12S1N1	HRS	63.5	63.1	2.8	1000	975	2	
860129	ANZA X CAJEME 71	602/13S1N1	HRS	61.1	61.0	1.8	910	904	4	P-MTIME Q-BCRGR
860130	ANZA X CAJEME 71	602/14S1N1	HRS	61.1	61.1	1.7	950	950	3	P-MTIME
860131	ANZA X CAJEME 71	602/15S1N1	HRS	64.4	62.6	1.7	955	843	4	P-MTIME&LVOL
860132	ANZA X CAJEME 71	602/16S1N1	HRS	62.6	61.9	3.0	875	832	6	P-LVOL&BCRGR
860133	ANZA X CAJEME 71	602/17S1N1	HRS	62.4	63.0	4.0	895	932	4	Q-BCRGR
860134	ANZA X CAJEME 71	602/18S1N1	HRS	63.2	63.5	2.4	790	809	6	P-MTIME, LVOL&BCRGR
860135	ANZA X CAJEME 71	602/19S1N1	HRS	64.2	63.4	2.0	910	860	6	P-MTIME, LVOL&BCRGR
860136	ANZA (C1015284)	602/20S1N1	HRS	60.7	61.3	1.8	830	867	6	P-MTIME, LVOL&BCRGR
860137	ANZA X CAJEME 71	602/21S1N1	HRS	64.1	64.1	3.3	900	900	4	P-FYELD
860138	ANZA X CAJEME 71	602/22S1N1	HRS	62.6	62.6	3.5	875	875	6	P-BCRGR
860139	ANZA X CAJEME 71	602/23S1N1	HRS	64.2	64.9	4.1	850	893	6	P-BCRGR
860140	ANZA X CAJEME 71	602/24S1N1	HRS	63.4	63.5	2.0	950	956	3	Q-MTIME
860141	ANZA X CAJEME 71	602/25S1N1	HRS	62.2	62.2	1.9	955	955	5	Q-MTIME&BCRGR
860142	ANZA X CAJEME 71	602/26S1N1	HRS	63.5	63.2	2.9	900	881	6	P-BCRGR
860143	ANZA X CAJEME 71	602/27S1N1	HRS	62.4	62.1	2.9	905	886	3	
860144	ANZA X CAJEME 71	602/28S1N1	HRS	62.2	62.0	2.6	925	913	6	P-BCRGR
860145	ANZA X CAJEME 71	602/29S1N1	HRS	62.5	63.6	5.1	820	888	6	P-BCRGR
860146	YECORA ROJO (C1017414)	602/30S1N1	HRS	66.2	65.3	5.5	920	864	2	
860147	ANZA X CAJEME 71	602/31S1N1	HRS	66.0	64.8	2.6	915	841	4	P-FYELD Q-LVOL&BCRGR
860148	ANZA X CAJEME 71	602/32S1N1	HRS	63.1	62.7	2.1	855	830	3	Q-MTIME&LVOL
860149	ANZA X CAJEME 71	602/33S1N1	HRS	63.8	64.4	3.0	870	907	4	P-FYELD
860150	ANZA X CAJEME 71	602/34S1N1	HRS	62.9	63.1	2.5	875	887	4	P-FYELD Q-BCRGR
860151	ANZA X CAJEME 71	602/35S1N1	HRS	61.9	62.8	3.7	875	931	3	





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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH		MSCOR	FPROT		MABSC	MTYPE
						1/	3/		1/	3/		
860152	ANZA X CAJEME 71	602/36S1N1	HRS	62.8	73.0	0.39		88.4	11.9		61.9	2H
860153	ANZA X CAJEME 71	602/37S1N1	HRS	63.7	72.5	0.39		87.5	10.7		60.0	7M
860154	ANZA X CAJEME 71	602/38S1N1	HRS	62.4	69.9	0.48		80.1	12.1		64.3	6H
860155	ANZA X CAJEME 71	602/39S1N1	HRS	61.1	69.9	0.45		81.7	10.4		62.8	8M
860156	CAJEME 71	602/40S1N1	HRS	62.1	70.0	0.45		81.9	11.6		64.1	5H
860157	ANZA X CAJEME 71	602/41S1N1	HRS	63.0	71.6	0.37		87.8	11.2		60.1	3M
860158	ANZA X CAJEME 71	602/42S1N1	HRS	62.2	71.2	0.39		86.2	10.8		61.5	3M
860159	ANZA X CAJEME 71	602/43S1N1	HRS	62.6	71.8	0.39		87.1	11.2		60.7	2H
860160	ANZA X CAJEME 71	602/44S1N1	HRS	61.5	71.0	0.38		86.7	11.2		61.1	3H
860161	ANZA X CAJEME 71	602/45S1N1	HRS	58.6	68.3	0.48		78.8	9.7		60.7	6M
860162	ANZA X CAJEME 71	602/46S1N1	HRS	62.1	71.2	0.38		86.8	11.1		60.2	3M
860163	ANZA X CAJEME 71	602/47S1N1	HRS	59.2	68.5	0.45		80.4	10.7		60.6	8M
860164	ANZA (C1015284)	602/48S1N1	HRS	61.3	71.5	0.40		86.3	10.4		61.4	3M
860165	ANZA X CAJEME 71	5/602/01S1N2	HRS	61.0	73.1	0.40		87.7	10.5		62.3	7M
860166	ANZA X CAJEME 71	602/02S1N2	HRS	62.2	68.0	0.38		83.4	11.8		60.5	6M
860167	ANZA X CAJEME 71	6/602/03S1N2	HRS	63.0	71.3	0.41		85.6	12.5		62.8	3H
860168	ANZA X CAJEME 71	6/602/04S1N2	HRS	59.2	69.8	0.39		84.9	11.4		60.8	3M
860169	ANZA X CAJEME 71	602/05S1N2	HRS	63.1	71.3	0.38		86.8	11.2		61.5	3M
860170	ANZA X CAJEME 71	602/06S1N2	HRS	61.4	70.4	0.38		86.0	11.5		60.2	3M
860171	ANZA X CAJEME 71	6/602/07S1N2	HRS	61.0	70.9	0.40		85.7	10.9		61.3	4M
860172	ANZA X CAJEME 71	602/08S1N2	HRS	60.8	69.7	0.39		84.7	11.1		60.6	4M
860173	ANZA X CAJEME 71	6/602/09S1N2	HRS	63.1	71.6	0.39		86.5	11.1		63.2	4H
860174	CAJEME 71	602/10S1N2	HRS	61.7	69.7	0.42		83.3	11.9		62.6	6H
860175	ANZA X CAJEME 71	602/11S1N2	HRS	61.6	67.4	0.42		80.9	9.7		62.0	6L
860176	ANZA X CAJEME 71	602/12S1N2	HRS	61.4	72.4	0.39		87.7	11.5		61.4	3H
860177	ANZA X CAJEME 71	6/602/13S1N2	HRS	60.5	71.5	0.40		86.3	10.9		61.4	3M
860178	ANZA X CAJEME 71	602/14S1N2	HRS	60.1	70.0	0.40		84.7	11.6		60.7	3M
860179	ANZA X CAJEME 71	602/15S1N2	HRS	62.4	70.3	0.39		85.5	12.6		60.3	2H
860180	ANZA X CAJEME 71	6/602/16S1N2	HRS	63.9	72.3	0.35		89.5	12.0		60.3	4H
860181	ANZA X CAJEME 71	6/602/17S1N2	HRS	60.4	70.8	0.41		85.1	10.6		61.9	8M
860182	ANZA X CAJEME 71	602/18S1N2	HRS	63.0	70.8	0.41		84.9	10.7		61.7	3H
860183	ANZA X CAJEME 71	602/19S1N2	HRS	61.7	69.5	0.44		82.1	11.9		60.7	2H
860184	ANZA (C1015284)	602/20S1N2	HRS	62.4	71.4	0.38		86.9	10.5		61.5	3M
860185	ANZA X CAJEME 71	6/602/21S1N2	HRS	59.7	69.4	0.40		84.1	10.8		61.6	7M
860186	ANZA X CAJEME 71	6/602/22S1N2	HRS	59.0	69.5	0.40		84.1	11.7		61.2	7M



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LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860152	ANZA X CAJEME 71	602/36S1N1	HRS	64.5	63.6	2.3	965	909		4 Q-MTIME&BCRGR
860153	ANZA X CAJEME 71	602/37S1N1	HRS	61.4	61.7	3.6	845	864		4 Q-BCRGR
860154	ANZA X CAJEME 71	602/38S1N1	HRS	67.1	66.0	4.2	940	872		3 Q-FYELD
860155	ANZA X CAJEME 71	602/39S1N1	HRS	63.9	64.5	4.1	825	862		4 Q-FYELD&BCRGR
860156	CAJEME 71	602/40S1N1	HRS	64.9	64.3	4.4	940	903		2
860157	ANZA X CAJEME 71	602/41S1N1	HRS	60.5	60.3	1.3	910	898		4 P-MTIME&BCRGR
860158	ANZA X CAJEME 71	602/42S1N1	HRS	62.5	62.7	2.1	905	917		2 Q-MTIME
860159	ANZA X CAJEME 71	602/43S1N1	HRS	62.1	61.9	1.8	885	873		6 P-MTIME&BCRGR
860160	ANZA X CAJEME 71	602/44S1N1	HRS	63.0	62.8	2.5	940	928		4 Q-BCRGR
860161	ANZA X CAJEME 71	602/45S1N1	HRS	61.1	62.4	3.4	850	931		6 P-FYELD&BCRGR
860162	ANZA X CAJEME 71	602/46S1N1	HRS	61.0	60.9	1.5	900	894		5 P-MTIME&BCRGR
860163	ANZA X CAJEME 71	602/47S1N1	HRS	62.0	62.3	5.3	860	879		4 P-FYELD&BCRGR
860164	ANZA (C1015284)	602/48S1N1	HRS	61.0	61.6	1.4	875	912		8
860165	ANZA X CAJEME 71	602/01S1N2	HRS	63.5	64.0	4.1	910	941		3
860166	ANZA X CAJEME 71	602/02S1N2	HRS	63.0	62.2	3.0	920	870		3 P-FYELD
860167	ANZA X CAJEME 71	602/03S1N2	HRS	66.0	64.5	3.2	935	842		3
860168	ANZA X CAJEME 71	602/04S1N2	HRS	62.4	62.0	2.5	940	915		3
860169	ANZA X CAJEME 71	602/05S1N2	HRS	62.4	62.2	1.5	890	878		4 P-MTIME&BCRGR
860170	ANZA X CAJEME 71	602/06S1N2	HRS	61.9	61.4	1.7	925	894		4 P-MTIME&BCRGR
860171	ANZA X CAJEME 71	602/07S1N2	HRS	61.9	62.0	2.1	935	941		3 Q-MTIME
860172	ANZA X CAJEME 71	602/08S1N2	HRS	62.4	62.3	2.4	825	819		8 P-LVOL&BCRGR
860173	ANZA X CAJEME 71	602/09S1N2	HRS	64.0	63.9	3.9	900	894		3
860174	CAJEME 71	602/10S1N2	HRS	65.2	64.3	4.6	945	889		2
860175	ANZA X CAJEME 71	602/11S1N2	HRS	62.4	63.7	5.0	850	931		6 P-FYELD,BCRGR
860176	ANZA X CAJEME 71	602/12S1N2	HRS	62.6	62.1	2.3	955	924		4 Q-BCRGR
860177	ANZA X CAJEME 71	602/13S1N2	HRS	62.0	62.1	2.0	965	971		3 Q-MTIME
860178	ANZA X CAJEME 71	602/14S1N2	HRS	61.5	60.9	1.8	965	928		4 P-MTIME&BCRGR
860179	ANZA X CAJEME 71	602/15S1N2	HRS	63.1	61.5	1.9	965	866		4 P-MTIME&BCRGR
860180	ANZA X CAJEME 71	602/16S1N2	HRS	63.0	62.0	3.1	955	893		2
860181	ANZA X CAJEME 71	602/17S1N2	HRS	63.2	63.6	4.2	945	970		3
860182	ANZA X CAJEME 71	602/18S1N2	HRS	63.1	63.4	2.6	840	859		6 P-MTIME&BCRGR
860183	ANZA X CAJEME 71	602/19S1N2	HRS	63.3	62.4	2.1	975	919		6 P-MTIME&BCRGR
860184	ANZA (C1015284)	602/20S1N2	HRS	62.7	63.2	2.0	860	891		6 P-MTIME&BCRGR
860185	ANZA X CAJEME 71	602/21S1N2	HRS	63.1	63.3	3.2	915	927		3 Q-FYELD
860186	ANZA X CAJEME 71	602/22S1N2	HRS	63.6	62.9	3.6	935	892		3 Q-FYELD





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LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 1/		1/ 1/	3/ 3/	
860187	ANZA X CAJEME 71	602/23S1N2	HRS	57.6	65.9	0.49	75.4	10.9	64.5	8M
860188	ANZA X CAJEME 71	602/24S1N2	HRS	62.3	70.0	0.43	83.1	10.7	62.8	3H
860189	ANZA X CAJEME 71	602/25S1N2	HRS	59.2	70.6	0.41	84.9	10.7	60.5	2M
860190	ANZA X CAJEME 71	6/ 602/26S1N2	HRS	64.6	71.2	0.40	86.0	11.8	60.5	4M
860191	ANZA X CAJEME 71	602/27S1N2	HRS	59.0	68.6	0.40	82.9	11.0	60.8	4M
860192	ANZA X CAJEME 71	602/28S1N2	HRS	59.5	68.9	0.42	82.4	11.3	61.2	4M
860193	ANZA X CAJEME 71	602/29S1N2	HRS	60.8	69.1	0.43	82.2	10.4	61.6	8M
860194	YECORA ROJO (C1017414)	602/30S1N2	HRS	63.4	71.3	0.43	84.6	12.1	63.9	6H
860195	ANZA X CAJEME 71	602/31S1N2	HRS	63.0	70.3	0.44	82.7	12.0	60.9	2H
860196	ANZA X CAJEME 71	6/ 602/32S1N2	HRS	63.2	70.4	0.44	83.0	11.6	60.9	3M
860197	ANZA X CAJEME 71	602/33S1N2	HRS	63.0	69.1	0.39	84.0	10.7	62.0	3H
860198	ANZA X CAJEME 71	602/34S1N2	HRS	61.1	68.7	0.44	81.2	11.1	61.7	3H
860199	ANZA X CAJEME 71	602/35S1N2	HRS	60.2	71.3	0.41	85.3	10.5	60.9	4M
860200	ANZA X CAJEME 71	602/36S1N2	HRS	63.1	73.7	0.40	88.5	12.2	61.1	2H
860201	ANZA X CAJEME 71	602/37S1N2	HRS	63.1	70.8	0.40	85.2	10.8	60.5	8M
860202	ANZA X CAJEME 71	602/38S1N2	HRS	63.4	70.2	0.45	82.0	12.2	63.1	5H
860203	ANZA X CAJEME 71	602/39S1N2	HRS	60.3	68.1	0.43	81.0	10.8	63.9	8M
860204	CAJEME 71	602/40S1N2	HRS	62.5	69.3	0.43	82.2	11.8	62.0	6H
860205	ANZA X CAJEME 71	602/41S1N2	HRS	62.4	71.4	0.36	88.0	11.4	60.5	3M
860206	ANZA X CAJEME 71	6/ 602/42S1N2	HRS	61.3	70.7	0.39	86.1	10.7	61.2	3M
860207	ANZA X CAJEME 71	602/43S1N2	HRS	61.8	71.0	0.38	86.6	11.9	61.9	2H
860208	ANZA X CAJEME 71	602/44S1N2	HRS	61.8	71.1	0.38	86.6	11.7	60.8	2H
860209	ANZA X CAJEME 71	602/45S1N2	HRS	56.3	68.1	0.45	79.8	10.2	61.6	8M
860210	ANZA X CAJEME 71	602/46S1N2	HRS	61.9	70.6	0.38	86.1	11.5	61.4	2H
860211	ANZA X CAJEME 71	602/47S1N2	HRS	58.0	68.1	0.46	79.5	10.9	62.4	8M
860212	ANZA (C1015284)	602/48S1N2	HRS	61.7	71.5	0.39	86.8	10.2	61.7	3M
860213	ANZA X CAJEME 71	6/ 602/01S2N1	HRS	60.5	70.8	0.44	83.5	10.5	61.6	4M
860214	ANZA X CAJEME 71	602/02S2N1	HRS	61.3	67.2	0.42	80.5	12.3	60.9	4H
860215	ANZA X CAJEME 71	602/03S2N1	HRS	61.7	69.0	0.46	80.5	12.6	61.1	3H
860216	ANZA X CAJEME 71	602/04S2N1	HRS	60.7	70.1	0.42	83.8	11.7	59.5	3M
860217	ANZA X CAJEME 71	602/05S2N1	HRS	63.1	71.0	0.39	85.9	11.7	60.5	2H
860218	ANZA X CAJEME 71	602/06S2N1	HRS	61.2	68.6	0.41	82.7	11.9	59.9	1H
860219	ANZA X CAJEME 71	602/07S2N1	HRS	62.2	70.3	0.41	84.5	10.9	60.6	2H
860220	ANZA X CAJEME 71	602/08S2N1	HRS	61.0	70.1	0.46	81.8	11.9	60.7	2H
860221	ANZA X CAJEME 71	6/ 602/09S2N1	HRS	61.9	70.7	0.42	84.4	11.6	61.2	3H

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LABNUM	VARIETY		IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
						3/			4/		
860187	ANZA	X CAJEME 71	602/23S1N2	HRS	66.1	66.2	4.4	930	936	6 P-FYELD&BCRGR	
860188	ANZA	X CAJEME 71	602/24S1N2	HRS	63.7	64.0	2.4	935	954	4 Q-MTIME&BCRGR	
860189	ANZA	X CAJEME 71	602/25S1N2	HRS	60.4	60.7	1.5	940	959	4 Q-MTIME&BCRGR	
860190	ANZA	X CAJEME 71	602/26S1N2	HRS	63.0	62.2	3.0	920	870	3	
860191	ANZA	X CAJEME 71	602/27S1N2	HRS	62.0	62.0	2.6	890	890	5 P-FYELD, LVOL&BCRGR	
860192	ANZA	X CAJEME 71	602/28S1N2	HRS	63.2	62.9	2.6	926	907	6 P-FYELD&BCRGR	
860193	ANZA	X CAJEME 71	602/29S1N2	HRS	62.7	63.3	4.3	860	897	4 Q-FYELD&BCRGR	
860194	YECORA	ROJO (C1017414)	602/30S1N2	HRS	66.7	65.6	5.8	925	857	2	
860195	ANZA	X CAJEME 71	602/31S1N2	HRS	63.6	62.6	2.6	905	843	5 P-BCRGR	
860196	ANZA	X CAJEME 71	602/32S1N2	HRS	63.2	62.6	2.1	920	883	2	
860197	ANZA	X CAJEME 71	602/33S1N2	HRS	62.9	63.2	3.0	890	909	6 P-BCRGR	
860198	ANZA	X CAJEME 71	602/34S1N2	HRS	63.5	63.4	2.3	885	879	4 Q-FYELD&BCRGR	
860199	ANZA	X CAJEME 71	602/35S1N2	HRS	62.1	62.6	3.1	875	906	5 P-BCRGR	
860200	ANZA	X CAJEME 71	602/36S1N2	HRS	63.0	61.8	1.9	995	921	4 P-MTIME&BCRGR	
860201	ANZA	X CAJEME 71	602/37S1N2	HRS	62.0	62.2	3.4	890	902	5 P-BCRGR	
860202	ANZA	X CAJEME 71	602/38S1N2	HRS	66.0	64.8	4.1	935	861	6 P-BCRGR	
860203	ANZA	X CAJEME 71	602/39S1N2	HRS	65.4	65.6	4.7	825	837	6 P-BCRGR	
860204	CAJEME	71	602/40S1N2	HRS	64.5	63.7	4.5	935	885	4 Q-BCRGR	
860205	ANZA	X CAJEME 71	602/41S1N2	HRS	61.1	60.7	1.7	920	895	5 P-MTIME&BCRGR	
860206	ANZA	X CAJEME 71	602/42S1N2	HRS	61.1	61.4	1.8	925	944	2 Q-MTIME	
860207	ANZA	X CAJEME 71	602/43S1N2	HRS	64.5	63.6	2.2	955	899	5 P-MTIME&BCRGR	
860208	ANZA	X CAJEME 71	602/44S1N2	HRS	63.2	62.5	2.3	915	872	4 P-MTIME&BCRGR	
860209	ANZA	X CAJEME 71	602/45S1N2	HRS	62.5	63.3	3.4	925	975	4 P-BCRGR	
860210	ANZA	X CAJEME 71	602/46S1N2	HRS	62.6	62.1	1.4	890	859	5 P-MTIME&BCRGR	
860211	ANZA	X CAJEME 71	602/47S1N2	HRS	64.0	64.1	5.4	920	926	3 P-FYELD	
860212	ANZA	(C1015284)	602/48S1N2	HRS	62.1	62.9	2.3	880	930	5	
860213	ANZA	X CAJEME 71	602/01S2N1	HRS	62.8	63.3	3.3	945	976	4 Q-BCRGR	
860214	ANZA	X CAJEME 71	602/02S2N1	HRS	63.9	62.6	3.1	975	894	4 P-FYELD	
860215	ANZA	X CAJEME 71	602/03S2N1	HRS	64.4	62.8	2.6	950	851	4 Q-FYELD&BCRGR	
860216	ANZA	X CAJEME 71	602/04S2N1	HRS	61.9	61.2	2.1	940	897	5 P-MTIME&BCRGR	
860217	ANZA	X CAJEME 71	602/05S2N1	HRS	62.4	61.7	1.7	910	867	6 P-MTIME&BCRGR	
860218	ANZA	X CAJEME 71	602/06S2N1	HRS	62.5	61.6	1.7	955	899	6 P-MTIME&BCRGR	
860219	ANZA	X CAJEME 71	602/07S2N1	HRS	61.7	61.8	2.0	950	956	5 P-MTIME&BCRGR	
860220	ANZA	X CAJEME 71	602/08S2N1	HRS	63.3	62.4	2.2	900	844	6 P-MTIME&BCRGR	
860221	ANZA	X CAJEME 71	602/09S2N1	HRS	63.5	62.9	3.2	925	888	3	





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LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860222	CAJEME 71	602/10S2N1	HRS	60.8	68.7	0.47	79.5	12.0	63.6	5H
860223	ANZA X CAJEME 71	602/11S2N1	HRS	61.0	66.3	0.46	77.8	10.0	62.2	7M
860224	ANZA X CAJEME 71	602/12S2N1	HRS	61.1	70.9	0.43	83.8	11.5	60.6	2H
860225	ANZA X CAJEME 71	602/13S2N1	HRS	59.1	69.0	0.44	81.3	11.7	61.9	2H
860226	ANZA X CAJEME 71	602/14S2N1	HRS	60.0	70.3	0.43	83.4	12.0	60.6	2H
860227	ANZA X CAJEME 71	602/15S2N1	HRS	61.6	70.0	0.42	83.3	13.3	60.9	1H
860228	ANZA X CAJEME 71	602/16S2N1	HRS	63.9	70.9	0.37	86.9	12.9	61.6	4M
860229	ANZA X CAJEME 71	602/17S2N1	HRS	60.3	69.9	0.44	82.4	11.4	60.8	8M
860230	ANZA X CAJEME 71	602/18S2N1	HRS	62.0	68.1	0.43	81.2	11.2	60.9	2H
860231	ANZA X CAJEME 71	602/19S2N1	HRS	61.5	68.6	0.44	81.1	12.2	62.0	2H
860232	ANZA (C1015284)	602/20S2N1	HRS	62.3	71.1	0.38	86.7	11.1	61.2	2M
860233	ANZA X CAJEME 71	602/21S2N1	HRS	60.4	70.0	0.43	83.0	11.0	62.8	4M
860234	ANZA X CAJEME 71	602/22S2N1	HRS	59.2	70.1	0.43	83.4	12.1	60.8	6M
860235	ANZA X CAJEME 71	602/23S2N1	HRS	59.0	66.3	0.53	73.8	10.9	62.3	4H
860236	ANZA X CAJEME 71	602/24S2N1	HRS	60.7	69.8	0.47	80.7	11.4	62.3	2H
860237	ANZA X CAJEME 71	602/25S2N1	HRS	58.3	69.2	0.52	77.4	11.3	60.5	2M
860238	ANZA X CAJEME 71	602/26S2N1	HRS	60.9	70.3	0.43	83.1	12.0	60.9	2H
860239	ANZA X CAJEME 71	602/27S2N1	HRS	58.7	68.4	0.47	79.3	11.2	61.0	3H
860240	ANZA X CAJEME 71	602/28S2N1	HRS	59.8	67.4	0.48	77.5	11.7	61.8	3H
860241	ANZA X CAJEME 71	602/29S2N1	HRS	61.2	68.0	0.43	81.1	10.9	61.8	6M
860242	YECORA ROJO (C1017414)	602/30S2N1	HRS	61.0	68.3	0.46	79.9	12.8	63.2	5H
860243	ANZA X CAJEME 71	602/31S2N1	HRS	62.8	68.1	0.46	79.6	11.9	63.4	2H
860244	ANZA X CAJEME 71	602/32S2N1	HRS	62.5	69.4	0.45	81.3	12.2	60.8	1H
860245	ANZA X CAJEME 71	602/33S2N1	HRS	60.9	66.6	0.43	79.5	11.2	61.9	2H
860246	ANZA X CAJEME 71	602/34S2N1	HRS	60.7	67.0	0.46	78.4	11.3	61.5	2H
860247	ANZA X CAJEME 71	602/35S2N1	HRS	59.6	70.0	0.44	82.6	10.8	61.1	4M
860248	ANZA X CAJEME 71	602/36S2N1	HRS	62.4	72.8	0.45	84.8	12.6	61.6	2H
860249	ANZA X CAJEME 71	602/37S2N1	HRS	63.2	71.0	0.42	84.5	11.0	61.4	4M
860250	ANZA X CAJEME 71	602/38S2N1	HRS	59.8	69.1	0.49	78.7	12.8	63.2	3H
860251	ANZA X CAJEME 71	602/39S2N1	HRS	60.9	67.3	0.46	78.8	10.4	61.4	7M
860252	CAJEME 71	602/40S2N1	HRS	61.1	68.5	0.47	79.5	12.3	64.0	5H
860253	ANZA X CAJEME 71	602/41S2N1	HRS	61.6	70.9	0.40	85.4	11.8	60.5	3M
860254	ANZA X CAJEME 71	602/42S2N1	HRS	61.1	70.4	0.43	83.3	11.4	61.0	3M
860255	ANZA X CAJEME 71	602/43S2N1	HRS	60.8	70.5	0.40	84.9	12.1	60.5	1H
860256	ANZA X CAJEME 71	602/44S2N1	HRS	60.8	70.9	0.40	85.7	12.1	60.9	2H



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LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860222	CAJEME 71	602/10S2N1	HRS	66.3	65.3	4.0	945	883	3	P-FYELD
860223	ANZA X CAJEME 71	602/11S2N1	HRS	62.9	63.9	4.1	830	892	5	P-FYELD&BCRGR
860224	ANZA X CAJEME 71	602/12S2N1	HRS	61.3	60.8	1.3	955	924	5	P-MTIME&BCRGR
860225	ANZA X CAJEME 71	602/13S2N1	HRS	63.3	62.6	1.7	1005	962	4	P-MTIME&BCRGR
860226	ANZA X CAJEME 71	602/14S2N1	HRS	62.3	61.3	1.3	975	913	4	P-MTIME&BCRGR
860227	ANZA X CAJEME 71	602/15S2N1	HRS	63.9	61.6	1.2	960	817	5	P-MTIME&BCRGR
860228	ANZA X* CAJEME 71	602/16S2N1	HRS	64.2	62.3	2.9	990	872	3	Q-FYELD
860229	ANZA X CAJEME 71	602/17S2N1	HRS	62.9	62.5	3.5	1020	995	4	Q-BCRGR
860230	ANZA X CAJEME 71	602/18S2N1	HRS	62.3	62.1	1.8	850	838	7	P-FYELD&BCRGR
860231	ANZA X CAJEME 71	602/19S2N1	HRS	64.4	63.2	1.8	1015	941	6	P-FYELD, MTIME&BCRGR
860232	ANZA (C1015284)	602/20S2N1	HRS	61.5	61.4	1.2	900	894	6	
860233	ANZA X CAJEME 71	602/21S2N1	HRS	63.5	63.5	2.8	940	940	5	P-BCRGR
860234	ANZA X CAJEME 71	602/22S2N1	HRS	63.6	62.5	3.2	965	897	3	
860235	ANZA X CAJEME 71	602/23S2N1	HRS	63.9	64.0	3.6	870	876	7	P-FYELD&BCRGR
860236	ANZA X CAJEME 71	602/24S2N1	HRS	63.4	63.0	1.8	950	925	6	P-FYELD, MTIME&BCRGR
860237	ANZA X CAJEME 71	602/25S2N1	HRS	61.0	60.7	1.2	940	921	7	P-FYELD, MTIME&BCRGR
860238	ANZA X CAJEME 71	602/26S2N1	HRS	62.6	61.6	2.3	975	913	4	P-MTIME&BCRGR
860239	ANZA X CAJEME 71	602/27S2N1	HRS	62.9	62.7	2.6	955	943	5	P-FYELD&BCRGR
860240	ANZA X CAJEME 71	602/28S2N1	HRS	64.2	63.5	2.6	925	882	5	P-FYELD&BCRGR
860241	ANZA X CAJEME 71	602/29S2N1	HRS	63.4	63.5	3.3	940	946	4	P-FYELD&BCRGR
860242	YECORA ROJO (C1017414)	602/30S2N1	HRS	66.7	64.9	4.4	1030	918	2	
860243	ANZA X CAJEME 71	602/31S2N1	HRS	66.0	65.1	2.4	915	859	5	P-MTIME&BCRGR
860244	ANZA X CAJEME 71	602/32S2N1	HRS	63.7	62.5	1.8	915	841	4	P-MTIME&BCRGR
860245	ANZA X CAJEME 71	602/33S2N1	HRS	63.8	63.6	2.6	900	888	5	P-MTIME, BCRGR&FYELD
860246	ANZA X CAJEME 71	602/34S2N1	HRS	63.5	63.2	2.2	930	911	4	P-MTIME&BCRGR&FYELD
860247	ANZA X CAJEME 71	602/35S2N1	HRS	62.6	62.8	3.0	900	912	4	P-BCRGR
860248	ANZA X CAJEME 71	602/36S2N1	HRS	64.9	63.3	2.1	1000	901	5	P-MTIME&BCRGR
860249	ANZA X CAJEME 71	602/37S2N1	HRS	63.1	63.1	3.3	915	915	6	P-BCRGR
860250	ANZA X CAJEME 71	602/38S2N1	HRS	66.7	64.9	2.9	985	873	4	P-BCRGR
860251	ANZA X CAJEME 71	602/39S2N1	HRS	62.5	63.1	3.7	785	822	7	P-FYELD, BCRGR
860252	CAJEME 71	602/40S2N1	HRS	67.0	65.7	4.1	980	899	4	P-FYELD&BCRGR
860253	ANZA X CAJEME 71	602/41S2N1	HRS	62.0	61.2	1.4	925	875	6	P-MTIME&BCRGR
860254	ANZA X CAJEME 71	602/42S2N1	HRS	63.1	62.7	1.9	925	900	6	P-MTIME&BCRGR
860255	ANZA X CAJEME 71	602/43S2N1	HRS	61.8	60.7	1.1	910	842	6	P-MTIME&BCRGR
860256	ANZA X CAJEME 71	602/44S2N1	HRS	62.2	61.1	1.3	970	902	8	P-MTIME&BCRGR





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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 3/		
860257	ANZA X CAJEME 71	602/45S2N1	HRS	57.8	67.5	0.49	77.1	10.2	61.9	6M
860258	ANZA X CAJEME 71	602/46S2N1	HRS	60.1	69.1	0.43	82.0	11.9	60.3	1H
860259	ANZA X CAJEME 71	602/47S2N1	HRS	59.0	66.6	0.49	76.5	11.6	61.2	5H
860260	ANZA (C1015284)	602/48S2N1	HRS	62.6	71.4	0.39	86.6	10.9	59.8	2M
860261	ANZA X CAJEME 71	6/ 602/01S2N2	HRS	60.3	71.0	0.43	84.1	10.7	60.9	6M
860262	ANZA X CAJEME 71	602/02S2N2	HRS	61.5	67.3	0.41	81.2	13.0	63.1	4H
860263	ANZA X CAJEME 71	6/ 602/03S2N2	HRS	62.0	69.7	0.44	82.0	13.4	62.9	4H
860264	ANZA X CAJEME 71	602/04S2N2	HRS	61.0	70.0	0.41	84.2	11.9	60.0	2M
860265	ANZA X CAJEME 71	602/05S2N2	HRS	63.0	71.0	0.39	86.0	12.1	61.2	2M
860266	ANZA X CAJEME 71	602/06S2N2	HRS	59.8	68.4	0.43	81.4	12.6	60.6	1H
860267	ANZA X CAJEME 71	602/07S2N2	HRS	61.9	70.0	0.44	82.6	12.2	60.9	2H
860268	ANZA X CAJEME 71	602/08S2N2	HRS	60.5	69.6	0.42	83.2	12.8	59.9	2H
860269	ANZA X CAJEME 71	6/ 602/09S2N2	HRS	62.3	71.1	0.41	85.2	12.0	60.9	3H
860270	CAJEME 71	602/10S2N2	HRS	60.4	68.7	0.48	79.0	12.6	62.9	5H
860271	ANZA X CAJEME 71	602/11S2N2	HRS	60.4	67.8	0.48	78.1	10.5	63.1	7M
860272	ANZA X CAJEME 71	602/12S2N2	HRS	60.9	70.6	0.42	84.2	12.0	60.1	1H
860273	ANZA X CAJEME 71	602/13S2N2	HRS	59.8	70.0	0.40	84.4	11.9	60.8	2H
860274	ANZA X CAJEME 71	602/14S2N2	HRS	59.5	69.5	0.43	82.6	12.0	60.1	1H
860275	ANZA X CAJEME 71	602/15S2N2	HRS	60.7	70.3	0.42	83.7	13.7	60.7	1H
860276	ANZA X CAJEME 71	6/ 602/16S2N2	HRS	63.4	71.5	0.37	87.8	13.0	61.6	3H
860277	ANZA X CAJEME 71	6/ 602/17S2N2	HRS	59.4	69.3	0.43	82.1	11.2	62.1	6M
860278	ANZA X CAJEME 71	602/18S2N2	HRS	61.6	68.4	0.42	81.7	11.8	62.1	2H
860279	ANZA X CAJEME 71	602/19S2N2	HRS	60.0	67.6	0.45	79.3	12.8	62.4	2H
860280	ANZA (C1015284)	602/20S2N2	HRS	61.3	70.6	0.38	86.1	11.3	61.0	1H
860281	ANZA X CAJEME 71	602/21S2N2	HRS	58.7	67.5	0.42	80.8	11.0	62.9	7M
860282	ANZA X CAJEME 71	602/22S2N2	HRS	60.4	69.3	0.41	83.5	12.2	61.0	4M
860283	ANZA X CAJEME 71	602/23S2N2	HRS	57.7	66.4	0.51	75.1	11.1	63.4	3H
860284	ANZA X CAJEME 71	602/24S2N2	HRS	59.4	68.1	0.48	78.2	11.4	62.5	2H
860285	ANZA X CAJEME 71	602/25S2N2	HRS	56.9	68.3	0.48	78.8	11.4	59.8	2M
860286	ANZA X CAJEME 71	6/ 602/26S2N2	HRS	60.2	70.7	0.42	84.2	12.3	60.5	2H
860287	ANZA X CAJEME 71	602/27S2N2	HRS	58.4	68.0	0.46	79.3	11.2	59.9	2H
860288	ANZA X CAJEME 71	602/28S2N2	HRS	58.4	66.2	0.48	76.3	12.4	60.7	2H
860289	ANZA X CAJEME 71	602/29S2N2	HRS	60.9	68.3	0.46	79.5	11.3	62.3	4H
860290	YECORA ROJO (C1017414)	602/30D2N2	HRS	62.2	69.3	0.48	79.9	13.0	63.5	5H
860291	ANZA X CAJEME 71	602/31S2N2	HRS	61.8	68.0	0.47	78.9	12.3	62.3	2H



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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860257	ANZA X CAJEME 71	602/45S2N1	HRS	61.8	62.6	2.9	910	960	6	P-FYELD,BCRGR
860258	ANZA X CAJEME 71	602/46S2N1	HRS	62.9	62.0	1.2	930	874	4	P-MTIME&BCRGR
860259	ANZA X CAJEME 71	602/47S2N1	HRS	63.5	62.9	3.7	950	913	5	P-FYELD&BCRGR
860260	ANZA (C1015284)	602/48S2N1	HRS	60.4	60.5	1.3	890	896	7	
860261	ANZA X CAJEME 71	602/01S2N2	HRS	62.3	62.6	3.1	950	969	3	
860262	ANZA X CAJEME 71	602/02S2N2	HRS	66.8	64.8	3.0	985	861	4	P-FYELD&BCRGR
860263	ANZA X CAJEME 71	602/03S2N2	HRS	67.0	64.6	2.9	1010	861	3	Q-FYELD
860264	ANZA X CAJEME 71	602/04S2N2	HRS	62.1	61.2	1.9	960	904	4	P-MTIME&BCRGR
860265	ANZA X CAJEME 71	602/05S2N2	HRS	62.5	61.4	1.2	945	877	5	P-MTIME&BCRGR
860266	ANZA X CAJEME 71	602/06S2N2	HRS	62.9	61.3	1.3	995	896	4	P-FYELD,MTIME&BCRGR
860267	ANZA X CAJEME 71	602/07S2N2	HRS	63.8	62.6	2.1	1010	936	4	Q-MTIME&BCRGR
860268	ANZA X CAJEME 71	602/08S2N2	HRS	63.4	61.6	2.0	905	793	6	P-MTIME&BCRGR
860269	ANZA X CAJEME 71	602/09S2N2	HRS	63.6	62.6	3.2	950	888	4	
860270	CAJEME 71	602/10S2N2	HRS	66.2	64.6	3.7	1015	916	3	
860271	ANZA X CAJEME 71	602/11S2N2	HRS	64.3	64.8	3.6	860	891	5	P-FYELD&BCRGR
860272	ANZA X CAJEME 71	602/12S2N2	HRS	61.8	60.8	1.5	980	918	4	P-MTIME&BCRGR
860273	ANZA X CAJEME 71	602/13S2N2	HRS	62.4	61.5	1.5	1010	954	4	P-MTIME&BCRGR
860274	ANZA X CAJEME 71	602/14S2N2	HRS	62.8	61.8	1.5	965	903	4	P-MTIME&BCRGR
860275	ANZA X CAJEME 71	602/15S2N2	HRS	65.1	62.4	1.4	935	768	5	P-MTIME&BCRGR
860276	ANZA X CAJEME 71	602/16S2N2	HRS	65.3	63.3	3.0	975	851	3	
860277	ANZA X CAJEME 71	602/17S2N2	HRS	64.0	63.8	3.2	980	968	3	Q-FYELD
860278	ANZA X CAJEME 71	602/18S2N2	HRS	64.6	63.8	2.0	855	805	6	P-FYELD,MTIME&BCRGR
860279	ANZA X CAJEME 71	602/19S2N2	HRS	65.9	64.1	2.0	970	858	4	P-FYELD,MTIME&BCRGR
860280	ANZA (C1015284)	602/20S2N2	HRS	62.0	61.7	1.3	900	881	6	P-MTIME&BCRGR
860281	ANZA X CAJEME 71	602/21S2N2	HRS	64.1	64.1	2.9	960	960	4	P-FYELD
860282	ANZA X CAJEME 71	602/22S2N2	HRS	63.9	62.7	2.9	960	886	5	P-BCRGR
860283	ANZA X CAJEME 71	602/23S2N2	HRS	65.2	65.1	2.4	935	929	7	P-FYELD,MTIME&BCRGR
860284	ANZA X CAJEME 71	602/24S2N2	HRS	64.6	64.2	2.3	940	915	6	P-FYELD,MTIME&BCRGR
860285	ANZA X CAJEME 71	602/25S2N2	HRS	60.9	60.5	1.3	900	875	6	P-FYELD,MTIME&BCRGR
860286	ANZA X CAJEME 71	602/26S2N2	HRS	63.5	62.2	2.4	965	884	4	Q-BCRGR
860287	ANZA X CAJEME 71	602/27S2N2	HRS	61.8	61.6	2.3	885	873	7	P-FYELD,MTIME&BCRGR
860288	ANZA X CAJEME 71	602/28S2N2	HRS	63.8	62.4	2.5	950	863	5	P-FYELD,MTIME&BCRGR
860289	ANZA X CAJEME 71	602/29S2N2	HRS	64.3	64.0	3.6	890	871	6	P-FYELD,BCRGR
860290	YECORA ROJO (C1017414)	602/30D2N2	HRS	67.2	65.2	4.3	975	851	3	
860291	ANZA X CAJEME 71	602/31S2N2	HRS	65.3	64.0	2.1	940	859	6	P-FYELD,MTIME&BCRGR





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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860292	ANZA X CAJEME 71	602/32S2N2	HRS	61.9	68.4	0.46	79.7	12.1	61.0	2H
860293	ANZA X CAJEME 71	602/33S2N2	HRS	61.6	67.1	0.43	80.1	11.8	60.3	3H
860294	ANZA X CAJEME 71	602/34S2N2	HRS	61.0	66.9	0.45	78.6	11.4	62.2	2H
860295	ANZA X CAJEME 71	6/ 602/35S2N2	HRS	59.8	69.5	0.43	82.7	10.8	61.7	6M
860296	ANZA X CAJEME 71	6/ 602/36S2N2	HRS	61.3	71.3	0.44	83.8	13.1	62.0	2H
860297	ANZA X CAJEME 71	6/ 602/37S2N2	HRS	62.2	69.4	0.45	81.5	11.5	60.7	6M
860298	ANZA X CAJEME 71	6/ 602/38S2N2	HRS	60.8	68.1	0.51	77.1	13.2	63.4	4H
860299	ANZA X CAJEME 71	602/39S2N2	HRS	59.7	65.7	0.48	76.2	11.0	62.5	7M
860300	CAJEME 71	602/40S2N2	HRS	62.3	67.4	0.47	78.2	12.6	63.5	5H
860301	ANZA X CAJEME 71	602/41S2N2	HRS	60.0	69.4	0.40	84.1	12.0	60.4	1H
860302	ANZA X CAJEME 71	602/42S2N2	HRS	59.1	69.5	0.44	82.0	12.1	61.7	2H
860303	ANZA X CAJEME 71	602/43S2N2	HRS	61.6	71.0	0.40	85.7	12.6	60.6	1H
860304	ANZA X CAJEME 71	602/44S2N2	HRS	61.5	70.8	0.41	85.1	12.5	61.1	2H
860305	ANZA X CAJEME 71	602/45S2N2	HRS	57.4	66.8	0.50	76.3	10.4	62.7	4M
860306	ANZA X CAJEME 71	602/46S2N2	HRS	59.9	69.7	0.45	81.8	12.7	61.3	1H
860307	ANZA X CAJEME 71	602/47S2N2	HRS	59.2	67.1	0.48	77.2	11.4	62.1	5H
860308	ANZA (C1015284)	602/48S2N2	HRS	60.8	70.4	0.41	84.3	11.4	60.2	1H



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CORCORAN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860292	ANZA X CAJEME 71	602/32S2N2	HRS	62.8	61.7	1.8	905	837		4 P-FYELD, MTIME&BCRGR
860293	ANZA X CAJEME 71	602/33S2N2	HRS	62.8	62.0	2.2	880	830		7 P-FYELD, MTIME&BCRGR
860294	ANZA X CAJEME 71	602/34S2N2	HRS	64.3	63.9	2.2	890	865		5 P-FYELD, MTIME&BCRGR
860295	ANZA X CAJEME 71	602/35S2N2	HRS	63.2	63.4	2.9	865	877		4 Q-BCRGR
860296	ANZA X CAJEME 71	602/36S2N2	HRS	64.8	62.7	2.0	1050	920		3 Q-MTIME
860297	ANZA X CAJEME 71	602/37S2N2	HRS	62.9	62.4	3.0	930	899		4 Q-BCRGR
860298	ANZA X CAJEME 71	602/38S2N2	HRS	67.3	65.1	3.3	1005	869		2 P-FYELD
860299	ANZA X CAJEME 71	602/39S2N2	HRS	64.2	64.2	3.6	835	835		6 P-FYELD&BCRGR
860300	CAJEME 71	602/40S2N2	HRS	66.8	65.2	4.1	985	886		3 P-FYELD
860301	ANZA X CAJEME 71	602/41S2N2	HRS	62.1	61.1	1.4	960	898		4 P-MTIME&BCRGR
860302	ANZA X CAJEME 71	602/42S2N2	HRS	63.5	62.4	1.7	980	912		4 P-MTIME&BCRGR
860303	ANZA X CAJEME 71	602/43S2N2	HRS	62.9	61.3	1.2	930	831		6 P-MTIME&BCRGR
860304	ANZA X CAJEME 71	602/44S2N2	HRS	63.3	61.8	1.5	980	887		3 P-MTIME&BCRGR
860305	ANZA X CAJEME 71	602/45S2N2	HRS	62.8	63.4	2.6	905	942		6 P-FYELD&BCRGR
860306	ANZA X CAJEME 71	602/46S2N2	HRS	63.7	62.0	1.3	950	845		5 P-MTIME&BCRGR
860307	ANZA X CAJEME 71	602/47S2N2	HRS	64.2	63.8	3.7	910	885		6 P-FYELD&BCRGR
860308	ANZA (C1015284)	602/48S2N2	HRS	61.3	60.9	1.2	880	855		6

## COMMENTS:

The saline treatment lowered test weight, flour yields, and thus milling score across all selections as summarized in Table 1, page 7. It increased flour ash and protein and shortened dough mixing time about one half minute. Loaf volumes after corrected for protein were essentially the same in all treatments, but crumb grain score was the poorest in the saline irrigated groups.

In Tables 2-4, pages 8-10, are listed the minimum, maximum, means, standard deviations, and CV's of the selections and standard check varieties. In Table 5, page 11, are identified the selections which were footnoted as promising in overall quality. Several of these were consistent across all four treatments. They were selections 602/01, 03, 09, 16, & 17. Others like 07, 22, 26, & 35, two of the four treatments were satisfactory.

See "Remarks" for major deficiencies.

P = Poor; Q = Questionable



TABLE 1

SUMMARY OF MEANS OF ANZA X CAJEME 71  
SELECTIONS (n = 43) QUALITY FACTORS WITH SALINITY  
AND NITROGEN TREATMENTS. 1/

	S1N1	S1N2	S2N1	S2N2
TWT	61.4 (62.2)*	61.3 (62.3)	60.8 (61.6)	60.4 (61.4)
FYELD	70.3 (70.68)	70.2 (70.6)	69.3 (69.6)	68.9 (69.3)
FASH	.40 (.41)	.41 (.41)	.44 (.43)	.44 (.44)
MSCOR	84.9 (84.7)	84.4 (84.8)	81.7 (82.4)	81.4 (81.5)
FPROT	11.04 (11.12)	11.23 (11.30)	11.61 (11.82)	11.97 (12.18)
BABS	62.78 (63.36)	63.03 (64.24)	63.17 (64.38)	63.79 (64.70)
MTIME	2.87 (3.54)	2.85 (3.84)	2.38 (3.00)	2.31 (2.92)
LVOL	892 (891)	917 (909)	937 (949)	943 (951)
LVOLC	889 (883)	902 (890)	899 (898)	992 (878)
BCRGR	4.28 (4.20)	4.21 (3.80)	5.05 (4.40)	4.65 (4.20)

\* Means of Anza (2), Cajeme 71 (2), and Yecora Rojo (1) for each treatment.

1/

S1 = Fresh Water, S2 = Saline water (4500 ppm), N1 = 160 lb/N at planting, N2 = 160 lb/N at planting plus 100 lb/N at heading.





TABLE 2

SELECTION MIN, MAX, MEAN, STD DEV, &amp; CV X TREATMENT.

S1N1							
SAS							
09:24 Friday, May 1, 1987 9							
N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
43	TWT	43	58.20	64.10	61.39	1.55	2.52
	FYELD	43	66.40	73.90	70.33	1.57	2.23
	FASH	43	0.30	0.48	0.40	0.03	8.23
	MSCOR	43	77.30	89.50	84.94	2.86	3.37
	FPRO	43	9.60	12.80	11.04	0.65	5.92
	MABSC	43	60.00	64.30	61.34	0.99	1.62
	SABSC	43	60.50	67.10	62.78	1.35	2.15
	BABSC	43	60.30	66.00	62.74	1.19	1.90
	MTIM	43	1.30	5.30	2.87	1.00	35.07
	LVOL	43	790.00	1000.00	891.63	46.30	5.19
	LVOLC	43	809.00	975.00	889.09	38.49	4.33
	BCRGR	43	2.00	6.00	4.28	1.35	31.57
	MABS	43	59.40	65.40	61.39	1.20	1.96

S1N2							
SAS							
09:24 Friday, May 1, 1987 5							
N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
43	TWT	43	56.30	64.60	61.29	1.80	2.94
	FYELD	43	65.90	73.70	70.18	1.53	2.18
	FASH	43	0.35	0.49	0.41	0.03	6.79
	MSCOR	43	75.40	89.50	84.39	2.71	3.22
	FPRO	43	9.70	12.60	11.23	0.64	5.89
	MABSC	43	60.20	64.50	61.47	0.98	1.60
	SABSC	43	60.40	66.10	63.03	1.24	1.96
	BABSC	43	60.70	66.20	62.80	1.20	1.92
	MTIM	43	1.40	5.40	2.85	1.02	35.80
	LVOL	43	825.00	995.00	916.65	38.47	4.20
	LVOLC	43	819.00	975.00	902.28	37.97	4.21
	BCRGR	43	2.00	8.00	4.21	1.36	32.19
	MABS	43	60.20	64.40	61.70	1.02	1.66

S2N1							
SAS							
09:24 Friday, May 1, 1987 5							
N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
43	TWT	43	57.80	63.90	60.84	1.33	2.19
	FYELD	43	66.30	72.80	69.27	1.56	2.25
	FASH	43	0.37	0.53	0.44	0.03	7.41
	MSCOR	43	73.80	86.90	81.66	2.91	3.57
	FPRO	43	10.00	13.30	11.61	0.72	6.17
	MABSC	43	59.50	63.40	61.26	0.81	1.33
	SABSC	43	61.00	66.70	63.17	1.13	1.79
	BABSC	43	60.70	65.10	62.57	1.03	1.65
	MTIM	43	1.10	4.10	2.38	0.83	34.75
	LVOL	43	785.00	1020.00	936.63	46.34	4.95
	LVOLC	43	817.00	995.00	899.00	41.21	4.58
	BCRGR	43	3.00	8.00	5.05	1.19	23.67
	MABS	43	60.20	65.00	61.87	1.00	1.61

S2N2							
SAS							
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N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
43	TWT	43	56.90	63.40	60.41	1.45	2.40
	FYELD	43	65.70	71.50	68.94	1.54	2.24
	FASH	43	0.37	0.51	0.44	0.03	7.46
	MSCOR	43	75.10	87.80	81.40	3.07	3.77
	FPRO	43	10.40	13.70	11.97	0.80	6.69
	MABSC	43	59.50	63.40	61.45	1.06	1.73
	SABSC	43	60.90	67.30	63.79	1.41	2.20
	BABSC	43	60.50	65.10	62.81	1.28	2.03
	MTIM	43	1.20	3.70	2.31	0.76	32.78
	LVOL	43	835.00	1050.00	942.79	47.78	5.07
	LVOLC	43	768.00	969.00	882.51	44.54	5.05
	BCRGR	43	2.00	7.00	4.65	1.25	26.90
	MABS	43	60.10	65.60	62.42	1.24	1.99



TABLE 3

STANDARD MIN, MAX, MEAN, STD DEV, &amp; CV X TREATMENT

## S1N1 STANDARDS

3A3

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N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
5	TWT	5	61.30	63.10	62.18	0.64	1.03
	FYELD	5	69.90	71.90	70.68	0.94	1.34
	FASH	5	0.38	0.45	0.41	0.03	6.28
	MSCOR	5	81.90	87.70	84.68	2.31	2.73
	FPRO	5	10.40	11.90	11.12	0.69	6.21
	MABSC	5	60.60	64.10	62.34	1.48	2.37
	BABS	5	60.70	66.20	63.36	2.42	3.82
	BABSC	5	61.30	65.30	63.24	1.73	2.74
	NTIM	5	1.40	5.50	3.54	1.82	51.53
	LVOL	5	830.00	940.00	891.00	42.49	4.77
	LVOLC	5	864.00	912.00	887.40	22.37	2.53
	BCRGR	5	2.00	8.00	4.20	2.66	63.89
	MABS	5	60.00	64.70	62.46	2.12	3.40

## S1N2 STANDARDS

N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
5	TWT	5	61.70	63.40	62.34	0.70	1.13
	FYELD	5	69.30	71.50	70.64	1.03	1.49
	FASH	5	0.38	0.43	0.41	0.02	5.72
	MSCOR	5	82.20	86.90	84.76	2.09	2.46
	FPRO	5	10.20	12.10	11.30	0.88	7.79
	MABSC	5	61.50	63.90	62.34	0.97	1.55
	BABS	5	62.10	66.70	64.24	1.87	2.91
	BABSC	5	62.90	65.80	63.94	1.07	1.67
	NTIM	5	2.00	5.80	3.84	1.65	42.42
	LVOL	5	860.00	945.00	909.00	36.98	4.07
	LVOLC	5	857.00	930.00	890.40	26.05	2.93
	BCRGR	5	2.00	8.00	3.80	1.79	47.08
	MABS	5	60.90	65.00	62.84	1.74	2.77

## S2N1 STANDARDS

N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
5	TWT	5	60.80	62.60	61.56	0.83	1.34
	FYELD	5	68.30	71.40	69.60	1.52	2.13
	FASH	5	0.38	0.47	0.43	0.05	10.38
	MSCOR	5	79.50	86.70	82.44	3.85	4.67
	FPRO	5	10.90	12.80	11.82	0.80	6.31
	MABSC	5	59.80	64.00	62.56	1.79	2.87
	BABS	5	60.40	67.00	64.38	3.16	4.92
	BABSC	5	60.50	65.70	63.56	2.42	3.81
	NTIM	5	1.20	4.40	3.00	1.60	53.49
	LVOL	5	890.00	1030.00	949.00	57.92	6.10
	LVOLC	5	883.00	918.00	898.00	12.71	1.42
	BCRGR	5	2.00	7.00	4.40	2.07	47.13
	MABS	5	59.70	65.30	63.18	2.52	3.99

## S2N2 STANDARDS

N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
5	TWT	5	60.40	62.30	61.40	0.34	1.37
	FYELD	5	67.40	70.60	69.28	1.31	1.89
	FASH	5	0.38	0.48	0.44	0.05	10.39
	MSCOR	5	78.20	86.10	81.50	3.49	4.28
	FPRO	5	11.30	13.00	12.13	0.78	6.37
	MABSC	5	60.20	63.50	62.22	1.53	2.45
	BABS	5	61.30	67.20	64.70	2.82	4.36
	BABSC	5	60.90	65.20	63.52	2.06	3.24
	NTIM	5	1.20	4.30	2.62	1.54	52.74
	LVOL	5	880.00	1015.00	951.00	58.03	6.10
	LVOLC	5	851.00	918.00	877.60	26.34	3.00
	BCRGR	5	3.00	8.00	4.20	1.64	39.12
	MABS	5	60.60	65.50	63.40	2.26	3.59





TABLE 4  
STANDARD VARIETIAL MIN, MAX, MEAN, STD DEV, & CV ACROSS TREATMENTS

SAS

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## ANZA MEANS

N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
8	TWT	8	60.80	62.50	61.83	0.65	1.04
	FYELD	8	70.40	71.90	71.22	0.50	0.70
	FASH	8	0.38	0.41	0.39	0.01	2.90
	MSCOR	8	84.30	87.70	86.42	0.98	1.13
	FPRQ	8	10.20	11.40	10.78	0.46	4.26
	MABSC	8	59.80	61.70	60.92	0.67	1.10
	BABS	8	60.40	62.70	61.46	0.77	1.26
	BABSC	8	60.50	63.20	61.69	0.93	1.50
	MTIM	8	1.20	2.30	1.56	0.42	26.70
	LVOL	8	830.00	900.00	876.87	23.14	2.64
	LVOLC	8	855.00	930.00	890.75	23.81	2.67
	BCHGR	8	5.00	8.00	6.25	0.89	14.13
	MABS	8	59.70	61.30	60.70	0.58	0.96

SAS

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## CAJEME 71 MEANS

N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
8	TWT	8	60.40	62.50	61.64	0.78	1.26
	FYELD	8	67.40	70.00	69.03	0.88	1.27
	FASH	8	0.42	0.48	0.45	0.02	5.48
	MSCOR	8	78.20	83.50	80.89	2.07	2.56
	FPRQ	8	11.30	12.60	12.01	0.46	3.86
	MABSC	8	62.00	64.10	63.09	0.84	1.33
	BABS	8	64.00	67.00	65.61	1.11	1.70
	BABSC	8	63.70	65.70	64.60	0.74	1.15
	MTIM	8	3.70	4.60	4.25	0.33	7.65
	LVOL	8	890.00	1015.00	954.37	38.12	3.99
	LVOLC	8	871.00	916.00	891.50	13.94	1.56
	BCRGR	8	2.00	4.00	3.00	0.76	25.20
	MABS	8	62.30	65.30	64.10	1.10	1.72

SAS

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## VECDRA ROLD MEANS

N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev	CV
4	TWT	4	61.00	63.40	62.42	1.08	1.73
	FYELD	4	68.30	71.30	69.75	1.27	1.52
	FASH	4	0.41	0.48	0.45	0.03	6.99
	MSCOR	4	79.90	84.60	82.10	2.55	3.11
	FPRQ	4	11.90	13.00	12.45	0.53	4.28
	MABSC	4	63.20	63.90	63.55	0.29	0.45
	BABS	4	65.20	67.20	66.70	0.41	0.61
	BABSC	4	64.90	65.60	65.25	0.27	0.44
	MTIM	4	4.30	5.80	5.00	0.76	15.20
	LVOL	4	920.00	1030.00	962.50	51.40	5.34
	LVOLC	4	851.00	918.00	872.50	30.80	3.53
	BCHGR	4	2.00	3.00	2.25	0.50	22.22
	MABS	4	64.50	65.50	65.00	0.41	0.63



TABLE 5

## SCORED AS PROMISING IN OVERALL QUALITY

Treatment					Treatment				
Selection #	S1N1	S1N2	S2N1	S2N2	Selection #	S1N1	S1N2	S2N1	S2N2
602/01	X	X	X	X	602/25				
02					26		X		X
03	X	X		X	27	X			
04		X			28				
05					29				
06					30	--- YECORA ROJO ---			
07	X	X			31				
08					32		X		
09	X	X	X	X	33				
10	--- CAJEME 71 ---				34				
11					35	X			X
12	X				36				X
13		X			37				X
14					38				X
15					39				
16		X	X	X	40	--- CAJEME 71 ---			
17	X	X	X	X	41				
18					42	X	X		
19					43				
20	--- ANZA ---				44				
21		X			45				
22		X	X		46				
23					47				
24					48	--- ANZA ---			



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CORCORAN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860309	ANZA (C1015284)	655/01S1	HRS	62.6	73.4	0.41	87.8	10.5	60.3	2M
860310	TADINIA	655/04S1	HRS	63.3	73.2	0.42	87.0	9.9	61.0	3M
860311	SHASTA (C1003976)	655/05S1	HRS	63.7	72.0	0.45	83.8	12.1	61.8	3H
860312	VEERY	655/06S1	HRS	62.3	70.4	0.47	81.6	11.9	59.2	3H
860313	KLASIC (P1486139)	655/07S1	HW	63.5	72.6	0.42	86.2	11.6	62.0	6H
860314	WESTBRED 911 (P1483456)	655/08S1	HRS	61.8	69.0	0.43	82.0	10.7	63.2	5H
860315	TZPP*ANZA2	655/11S1	HRS	63.7	71.6	0.40	86.3	11.1	61.1	2H
860316	LRR ANZA	655/12S1	HRS	62.1	72.8	0.41	87.2	10.6	60.5	3M
860317	BB S'*ANZA	655/13S1	HRS	62.0	72.3	0.41	86.6	10.7	60.6	2H
860318	AZTECA*ANZA	6/ 655/14S1	HRS	62.2	71.7	0.42	85.3	11.6	60.9	2H
860319	YECORA S'*MEXIFEN	5/ 655/15S1	HRS	62.4	72.6	0.41	86.6	11.6	61.0	6H
860320	SIETE CERROS (WA5539)	655/19S1	HRS	62.7	69.3	0.44	81.6	9.8	62.4	4H
860321	ANZA (C1015284)	655/01S2	HRS	60.0	70.8	0.42	84.3	11.2	59.1	1H
860322	TADINIA	655/04S2	HRS	60.2	70.9	0.46	82.5	10.6	59.1	3M
860323	SHASTA (C1003976)	655/05S2	HRS	61.1	69.2	0.50	78.6	12.8	61.5	2H
860324	VEERY	655/06S2	HRS	60.6	67.8	0.50	77.0	12.4	58.2	2H
860325	KLASIC (P1486139)	655/07S2	HW	59.9	68.8	0.44	81.1	12.3	62.3	5H
860326	WESTBRED 911 (P1483456)	655/08S2	HRS	59.2	64.8	0.52	72.7	11.3	62.4	4H
860327	TZPP*ANZA	655/11S2	HRS	62.9	71.4	0.41	85.7	11.8	61.5	2H
860328	LRR ANZA	655/12S2	HRS	61.1	71.1	0.42	84.5	11.1	60.6	1H
860329	BB S'*ANZA	655/13S2	HRS	59.8	69.5	0.45	81.5	12.0	61.7	1H
860330	AZTECA*ANZA	6/ 655/14S2	HRS	61.0	70.7	0.44	83.0	12.5	61.2	2H
860331	YECORA S'*MEXIFEN	6/ 655/15S2	HRS	59.7	71.0	0.51	80.1	11.6	59.5	5H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





## VARIETY YIELD TRIAL

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CORCORAN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860309	ANZA (CI015284)	655/01S1	HRS	60.5	61.0	1.7	850	881	9P-MTIME&BCRGR	
860310	TADINIA	655/04S1	HRS	59.6	60.7	2.2	800	868	9P-MTIME&BCRGR	
860311	SHASTA (CI003976)	655/05S1	HRS	64.6	63.5	2.6	890	822	2	
860312	VEERY	655/06S1	HRS	61.8	60.9	3.5	850	794	8P-LVOL&BCRGR	
860313	KLASIC (PI486139)	655/07S1	HW	64.3	63.7	5.0	965	928	2	
860314	WESTBRED 911 (PI483456)	655/08S1	HRS	64.6	64.9	4.3	815	834	8Q-FYELD P-LVOL&BCRGR	
860315	TZPP*ANZA2	655/11S1	HRS	62.9	62.8	2.2	915	909	4Q-P-MTIME&BCRGR	
860316	LRR ANZA	655/12S1	HRS			No Baking/Poor	Mixograph properties			
860317	BB S'*ANZA	655/13S1	HRS	61.0	61.3	2.0	975	994	5P-MTIME&BCRGR	
860318	AZTECA*ANZA	655/14S1	HRS	62.7	62.1	2.5	905	868	3Q-BCRGR	
860319	YECORA S'*MEXIFEN	655/15S1	HRS	63.3	62.7	6.2	950	913	2Excellent	
860320	SIETE CERROS (WA5539)	655/19S1	HRS	62.9	64.1	3.2	835	909	5Q-FYELD,BCRGR	
860321	ANZA (CI015284)	655/01S2	HRS	60.0	59.8	1.5	915	903	6P-MTIME&BCRGR	
860322	TADINIA	655/04S2	HRS	59.4	59.8	1.9	865	890	8P-MTIME&BCRGR	
860323	SHASTA (CI003976)	655/05S2	HRS	65.0	63.2	3.2	965	853	4Q-FYELD&BCRGR	
860324	VEERY	655/06S2	HRS	61.3	59.9	2.1	870	783	8P-FYELD,LVOL&BCRGR	
860325	KLASIC (PI486139)	655/07S2	HW	65.3	64.0	4.5	1040	959	3Q-FYELD,BCRGR	
860326	WESTBRED 911 (PI483456)	655/08S2	HRS	64.4	64.1	3.6	825	806	6P-FYELD,LVOL&BCRGR	
860327	TZPP*ANZA	655/11S2	HRS	64.0	63.2	2.0	940	890	4Q-P-MTIME&BCRGR	
860328	LRR ANZA	655/12S2	HRS			No Baking/Poor	Mixograph properties			
860329	BB S'*ANZA	655/13S2	HRS	62.9	61.9	1.3	1005	943	5P-MTIME&BCRGR	
860330	AZTECA*ANZA	655/14S2	HRS	64.4	62.9	2.2	1005	912	3Q-BCRGR&MTIME	
860331	YECORA S'*MEXIFEN	655/15S2	HRS	61.8	61.2	3.9	975	938	3Q-BCRGR	

COMMENTS: Selections 655/14S and 15S appear to have some promise for overall quality. All others are unsatisfactory for milling and/or baking quality. See "Remarks" for deficiencies.

P = Poor; Q = Questionable



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CONNELL, WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860333	WAMPUM	C1017691	HRS	61.5	72.1	0.47	81.5	9.8	64.6	4H
860334	MCKAY	C1017903	HRS	63.3	72.1	0.39	86.1	10.9	65.4	6H
860335	NK751	NK761011	HRS	62.0	71.6	0.44	82.2	10.9	64.1	5H
860336	WPB 906R	WPB00906	HRS	62.9	68.9	0.44	77.4	12.0	63.9	5H
860337	K73579/BORAH	WA7075	HRS	61.5	71.8	0.44	81.9	13.1	63.3	3H
860338	WA6823 NZ SEL11	WA7190	HRS	60.2	71.9	0.43	81.6	11.5	63.6	4H
860339	K76130 K7205078/(C114193, RED RIVER 68-1)	WA7326 6/	HRS	62.1	73.1	0.47	83.2	12.4	67.4	8H
860340	NDM0004/NHS07664 S82-07 KNC00020	WA7330 6/	HRS	56.7	70.8	0.47	78.6	12.9	63.4	4H
860341	COWBIRD/STERLING	ID0308	HRS	64.0	74.2	0.43	87.8	10.4	63.0	4H
860342	WEBSTER/ERA//MN7125	HS820175	HRS	63.8	72.8	0.43	85.3	11.6	68.0	5H
860343	WA6823 C117689/WARED, K74102-118 NZSEL10	WA7495 6/	HRS	60.2	72.3	0.45	83.2	11.9	65.7	4H
860344	" NZ SEL.21	HP830013 6/	HRS	59.8	73.3	0.43	85.2	11.7	65.8	4H
860345	VH07025/TWIN K73287	K7801395	HRS	62.0	73.1	0.42	86.1	10.6	62.9	3H
860346	E713007-1/BORAH	K8000121 6/	HRS	61.6	72.7	0.40	85.8	11.3	66.1	5H
860347	ID0107/(K7205139, WA5261/3/CAN3845/HV11-	K8100289 5/	HRS	61.8	71.2	0.41	83.1	10.5	63.9	5H
860348	K7205078/JARAL S'(B)K76128 S.10	K8100338	SWS	60.0	69.4	0.44	78.3	12.8	58.3	1H
860349	K76130 K7205078/(C114193, RED RIVER 68-1)	K8105321 6/	HRS	63.0	73.6	0.49	83.9	12.0	66.4	5H
860350	K76237/LWA6108, WA5243/3/C3845/H7-536//M)	K8200286 6/	HRS	62.8	73.8	0.53	81.7	11.1	66.2	5H
860351	W/S75393/(K75002, BEZ-1(14X53-101)BURT...	K8200553	HRS	61.8	71.4	0.42	83.8	10.7	64.9	3H
860352	K78560-4 BORAH/WA6389	K8300048 5/	HRS	61.4	75.3	0.45	87.9	11.6	65.9	6H
860353	K79458-6 NHS1083-74//Y75111507/MN70170	K8300110 5/	HRS	62.0	72.5	0.42	85.4	11.2	65.3	5H
860354	K79332 K78546/(K78554, PROSPUR//HIGHSIDE	K8400063	HRS	61.9	73.2	0.43	86.1	12.0	65.3	2H
860355	K79526 TZPP-PL7C/(K7500567, BEZ-1/...	K8400176	HRS	62.1	69.6	0.47	79.6	12.9	64.9	2H
860356	K79555 WA6389/K74083-1921, C18500...	K8400209	HRS	61.4	73.1	0.47	84.4	11.7	65.1	4H
860357	NDM004/NK075 S82-62	WA7493 6/	HRS	61.9	72.8	0.44	84.8	12.0	64.6	5H
860358	" S82-66	WA7494	HRS	62.2	72.8	0.45	84.4	11.0	66.0	5H
860359	NK0751/NDM00011 S82-02	KNC00043	HRS	61.9	72.3	0.45	83.4	11.1	65.2	5H
860360	" S82-07	KNC00043	HRS	62.1	71.8	0.43	84.3	10.9	64.8	5H
860361	" S82-08	KNC00043	HRS	61.7	72.5	0.45	84.2	11.3	65.7	5H
860362	" S82-10	KNC00043 6/	HRS	61.6	71.3	0.43	83.2	11.3	65.0	5H
860363	" S82-18	KNC00043 6/	HRS	61.7	71.2	0.43	82.0	11.0	65.9	5H
860364	" S82-20	KNC00043 6/	HRS	61.3	71.7	0.44	82.1	11.1	65.6	5H
860365	" S82-24	KNC00043 5/	HRS	61.8	72.0	0.45	81.7	10.5	64.8	5H
860366	" S82-27	KNC00043 6/	HRS	61.8	71.2	0.45	80.0	11.2	65.1	5H
860367	" S82-31	KNC00043 6/	HRS	61.8	70.7	0.45	79.6	11.5	66.1	5H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 6

CONNELL, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860333	WAMPUM	C1017691	HRS	63.6	64.8	4.2	935	1009	2	
860334	MCKAY	C1017903	HRS	67.0	67.1	6.9	970	976	2	
860335	NK751	NK761011	HRS	64.7	64.8	4.6	1000	1006	1	Q-P-FYELD
860336	WPB 906R	WPB00906	HRS	65.6	64.6	4.6	980	918	1	
860337	K73579/BORAH	WA7075	HRS	67.1	65.0	3.6	1060	930	3	Q-BCRGR
860338	WA6823 NZ.SEL11	WA7190	HRS	64.8	64.3	3.5	975	944	3	Q-BCRGR
860339	K76130 K7205078/(C114193,RED RIVER 68-1)	WA7326	HRS	70.5	69.1	13.0	990	903	2	
860340	NDM00004/NHS07664 S82-07 KNC00020	WA7330	HRS	67.0	65.1	4.1	1070	952	2	Q-TWT,FYELD
860341	COWBIRD/STERLING	ID0308	HRS	64.6	65.2	3.9	925	962	3	Q-BCRGR
860342	WEBSTER/ERA//MN7125	HS820175	HRS	70.3	69.7	3.9	975	938	4	Q-BCRGR
860343	WA6823 C117689/WARED,K74102-118 NZSEL10	WA7495	HRS	67.3	66.4	3.6	960	904	2	
860344	" NZ.SEL.21	HP830013	HRS	68.2	67.5	3.3	980	937	2	
860345	VHO7025/TWIN K73287	K7801395	HRS	64.2	64.6	2.8	905	930	3	Q-BCRGR
860346	E713007-1/BORAH	K8000121	HRS	66.6	66.3	5.0	980	961	3	Q-BCRGR
860347	ID0107/(K7205139,WA526113/CAN3845/HV11-	K8100289	HRS	65.1	65.6	5.5	1000	1031	2	
860348	K7205078/JARAL S'(B)K76128 S.10	K8100338	SWS	58.8	57.0	1.0	710	602	9	VP-Baking(soft)
860349	K76130 K7205078/(C114193,RED RIVER 68-1)	K8105321	HRS	67.6	66.6	6.7	1005	943	2	
860350	K76237/(WA6108,WA5243/3/C3845/H7-536//M)	K8200286	HRS	65.0	64.9	5.1	975	969	2	
860351	W/S75393/(K75002,BEZ-1(14X53-101)BURT...	K8200553	HRS	66.3	66.6	2.9	965	984	4	Q-BCRGR
860352	K78560-4 BORAH/WA6389	K8300048	HRS	66.2	65.6	7.5	1000	963	2	
860353	K79458-6 NHS1083-74//Y75111507/MN70170	K8300110	HRS	67.2	67.0	5.6	1025	1013	2	
860354	K79332 K78546/(K78554,PROSPUR//HIGHSIDE	K8400063	HRS	65.0	64.0	2.1	975	913	4	Q-BCRGR
860355	K79526 TZPP-PL7C/(K7500567,BEZ-1/...	K8400176	HRS	67.5	65.6	2.1	1065	947	2	Q-FYELD,FASH
860356	K79555 WA6389/K74083-1921,C18500...	K8400209	HRS	67.5	66.8	3.7	940	897	6	P-BCRGR
860357	NDM004/NK075 S82-62	WA7493	HRS	65.3	64.3	4.5	1000	938	2	
860358	" S82-66	WA7494	HRS	66.7	66.7	5.2	1005	1005	4	Q-P-BCRGR
860359	NK0751/NDM00011 S82-02	KNC00043	HRS	66.0	65.9	4.8	1010	1004	5	Q-P-BCRGR
860360	" S82-07	KNC00043	HRS	65.4	65.5	5.4	925	931	4	Q-P-BCRGR
860361	" S82-08	KNC00043	HRS	66.2	65.9	5.6	950	931	4	Q-P-BCRGR
860362	" S82-10	KNC00043	HRS	65.5	65.2	5.1	1000	981	3	Q-BCRGR
860363	" S82-18	KNC00043	HRS	66.6	66.6	5.6	985	985	2	
860364	" S82-20	KNC00043	HRS	65.9	65.8	5.3	975	969	2	
860365	" S82-24	KNC00043	HRS	64.5	65.0	4.7	960	991	2	
860366	" S82-27	KNC00043	HRS	66.0	65.8	4.8	980	968	2	
860367	" S82-31	KNC00043	HRS	66.8	66.3	5.3	1020	989	2	Q-FYELD



NURSCO 6

CONNELL, WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
860368 "	S82-35	KNC00043	HRS	61.9	71.8	0.45	81.8	11.2	65.6	5H
860369 "	S82-39	KNC00043	HRS	61.4	71.6	0.44	83.1	10.8	66.4	5H
860370	NDM00011/NK751 S83-08	KNC00042	HRS	62.0	71.6	0.44	82.5	10.7	65.4	5H
860371	NK0751/NDM00011 S83-01	KNC00043	HRS	62.0	71.5	0.44	81.7	11.3	65.7	5H
860372 "	S83-05	KNC00043	HRS	61.6	71.3	0.44	82.4	10.7	64.3	5H
860373 "	S83-07	KNC00043	HRS	62.6	72.8	0.45	84.3	10.7	63.7	5H
860374 "	S83-35	KNC00043	HRS	61.8	71.3	0.43	85.2	11.2	66.2	5H



NURSCO 6

CONNELL, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
860368 "	S82-35	KNC000043	HRS	66.5	66.3	5.8	1015	1003	4	Q-P-BCRGR
860369 "	S82-39	KNC000043	HRS	65.9	66.1	5.9	880	892	6	P-BCRGR
860370 NDM00011/NK751	S83-08	KNC000042	HRS	65.8	66.1	5.0	950	969	5	P-BCRGR
860371 NK0751/NDM00011	S83-01	KNC000043	HRS	64.7	64.4	4.7	1010	991	4	Q-P-BCRGR
860372 "	S83-05	KNC000043	HRS	64.7	65.0	5.1	960	979	5	P-BCRGR
860373 "	S83-07	KNC000043	HRS	65.1	65.4	5.1	955	974	5	P-BCRGR
860374 "	S83-35	KNC000043	HRS	66.1	65.9	6.2	955	943	4	Q-P-BCRGR

COMMENTS: See "footnotes" for the selections which have promising overall quality, and "Remarks" for major deficiencies or questionable properties.

Q = Questionable; P = Poor





NURSCO 7

CONNELL, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860375	WAMPUM	C1017691	HRS	61.7	71.2	0.49	80.6	10.6	63.9	4H
860376	K73579/BORAH	6/ WA7075	HRS	61.9	70.5	0.47	79.8	11.4	65.3	4H
860377	K78510-6 TIFTON 2408/URQUIE	K8300007	HRS	63.2	69.0	0.45	78.5	11.6	65.2	4H
860378	K78550-1 PROSPUR/WA6389	6/ K8300021	HRS	62.1	71.6	0.45	82.3	10.5	66.0	5H
860379	K78550-2 PROSPUR/WA6389	6/ K8300022	HRS	63.0	71.7	0.42	83.9	11.1	64.6	6H
860380	K78550-3 PROSPUR/WA6389	6/ K8300023	HRS	62.2	70.9	0.40	83.8	11.1	65.2	6H
860381	K78612-2 CLEOPATRA/WA609	K8300055	HRS	62.2	70.4	0.43	82.5	12.1	65.6	6H
860382	K79342 K78548/K74101-116//UT982 SEL.04	K8400069	HRS	62.2	72.7	0.43	85.9	12.7	65.9	5H
860383	K79347 K78560/(K74083-1921,C18500/...	K8400083	HRS	62.9	73.5	0.48	83.1	11.0	64.0	3H
860384	K79555 WA6389/(K74083-1921,C18500/...	K8400211	HRS	61.7	71.5	0.43	83.4	11.7	63.1	3H
860385	K79558 WA6389/(SYNT 273-501, SMD69086...	K8400249	HRS	62.0	72.0	0.42	84.8	11.3	64.4	4H
860386	NK751	6/ NK761011	HRS	62.3	71.6	0.46	82.4	11.6	64.9	5H
860387	NDDM0004/NK0751 S82-40	KNC00030	HRS	61.0	72.4	0.49	82.5	11.7	63.5	2H
860388	" S82-52	6/ KNC00030	HRS	61.2	70.6	0.50	78.6	12.8	65.7	4H
860389	" S82-63	6/ KNC00030	HRS	62.6	71.6	0.44	82.7	10.7	64.1	8M
860390	" S82-73	KNC00030	HRS	61.0	69.9	0.51	76.3	11.9	64.2	4H
860391	NK0751/NDM00011 S82-01	5/ KNC00043	HRS	62.8	72.8	0.45	84.4	11.2	64.8	5H
860392	" S82-12	5/ KNC00043	HRS	62.5	71.6	0.44	83.2	11.5	65.6	5H
860393	" S82-13	5/ KNC00043	HRS	62.3	71.6	0.44	82.3	11.7	65.1	5H
860394	" S82-16	6/ KNC00043	HRS	62.4	72.4	0.45	83.7	11.8	64.5	5H
860395	" S82-17	6/ KNC00043	HRS	62.1	71.1	0.45	81.5	11.3	65.3	5H
860396	" S82-32	5/ KNC00043	HRS	62.5	72.6	0.46	83.9	11.4	65.0	5H
860397	" S82-34	6/ KNC00043	HRS	62.5	72.1	0.46	82.5	11.0	65.3	5H
860398	NHS-7664	6/ NHS7664	HRS	62.3	72.6	0.46	82.7	11.9	64.1	5H
860399	NDM0004/NHS7664 S83-07	6/ KNC00020	HRS	57.5	70.3	0.48	78.9	12.5	63.0	4H
860400	" S83-13	5/ KNC00020	HRS	62.3	71.2	0.46	81.8	11.5	63.6	5H
860401	NDM0004/NK0751 S83-17	KNC00030	HRS	59.7	73.2	0.49	84.4	12.1	62.2	3H
860402	" S83-54	KNC00030	HRS	60.8	74.1	0.49	85.2	11.9	62.5	4H
860403	" S83-119	KNC00030	HRS	59.6	72.4	0.48	82.7	11.4	62.6	3H
860404	NDM00011/NK0751 S83-01	KNC00042	HRS	62.7	72.2	0.45	83.9	11.2	64.1	5H
860405	" S83-02	6/ KNC00042	HRS	62.2	71.7	0.44	82.6	11.4	63.9	5H
860406	NK0751/NDM00011 S83-02	6/ KNC00043	HRS	61.7	71.3	0.45	82.0	11.3	64.8	5H
860407	" S83-10	KNC00043	HRS	62.4	70.7	0.46	80.9	10.5	63.2	5H
860408	" S83-12	KNC00043	HRS	62.9	70.9	0.45	81.2	10.7	63.6	5H
860409	" S83-13	6/ KNC00043	HRS	62.5	72.1	0.46	82.7	11.1	64.6	5H
860410	" S83-31	6/ KNC00043	HRS	62.7	71.1	0.45	81.9	11.0	65.2	5H

1/ Observed Values Corrected to 14% Moisture Basis.

2/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 7

CONNELL, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860375	WAMPUM	C1017691	HRS	65.2	65.6	4.6	940	965	2	High Ash
860376	K73579/BORAH	WA7075	HRS	67.4	67.0	4.0	950	925	2	
860377	K78510-6 TIFTON 2408/URQUIE	K8300007	HRS	67.5	66.9	3.9	985	948	2	Q-FYELD
860378	K78550-1 PROSPUR/WA6389	K8300021	HRS	67.2	67.7	4.8	915	946	2	
860379	K78550-2 PROSPUR/WA6389	K8300022	HRS	66.4	66.3	7.2	980	974	2	Very long mixing
860380	K78550-3 PROSPUR/WA6389	K8300023	HRS	67.0	66.9	5.6	920	914	2	
860381	K78612-2 CLEOPATRA/WA609	K8300055	HRS	68.4	67.3	5.6	955	887	2	Q-P-LVOL
860382	K79342 K78548/K74101-116//UT982 SEL.04	K8400069	HRS	69.3	67.6	4.6	930	825	2	Q-P-LVOL
860383	K79347 K78560/(K74083-1921,C18500/...	K8400083	HRS	65.7	65.7	3.6	885	885	4	Q-P-LVOL&BCRGR
860384	K79555 WA6389/(K74083-1921,C18500/...	K8400211	HRS	65.5	64.8	3.5	855	812	3	Q-P-LVOL&BCRGR
860385	K79558 WA6389/(SYNT 273-501,SMD69086...	K8400249	HRS	66.4	66.1	4.5	910	891	3	Q-P-LVOL&BCRGR
860386	NK751	NK761011	HRS	66.2	65.6	4.3	985	948	2	
860387	NDDM0004/NK0751 S82-40	KNC00030	HRS	64.4	63.7	1.9	910	867	8	P-MTIME&BCRGR
860388	" S82-52	KNC00030	HRS	68.7	66.9	3.4	1085	973	1	
860389	" S82-63	KNC00030	HRS	64.0	64.3	5.0	925	944	2	
860390	" S82-73	KNC00030	HRS	66.3	65.4	2.9	970	914	3	Q-FYELD&BCRGR
860391	NK0751/NDM00011 S82-01	KNC00043	HRS	64.7	64.5	4.7	965	953	2	
860392	" S82-12	KNC00043	HRS	66.8	66.3	5.5	995	964	2	
860393	" S82-13	KNC00043	HRS	66.0	65.3	4.6	1020	977	2	
860394	" S82-16	KNC00043	HRS	66.0	65.2	4.7	975	925	2	
860395	" S82-17	KNC00043	HRS	67.3	67.0	5.0	950	931	2	
860396	" S82-32	KNC00043	HRS	67.1	66.7	4.7	985	960	2	
860397	" S82-34	KNC00043	HRS	67.0	67.0	5.1	935	935	2	
860398	NHS-7664	NHS7664	HRS	66.7	65.8	5.1	960	904	2	Q-LVOL
860399	NDM0004/NHS7664 S83-07	KNC00020	HRS	66.2	64.7	3.4	975	882	2	Q-LVOL
860400	" S83-13	KNC00020	HRS	65.8	65.3	4.3	1005	974	2	
860401	NDM0004/NK0751 S83-17	KNC00030	HRS	65.0	63.9	3.4	995	927	4	Q-LVOL&BCRGR
860402	" S83-54	KNC00030	HRS	65.1	64.2	3.4	965	909	3	Q-LVOL&BCRGR
860403	" S83-119	KNC00030	HRS	64.7	64.3	3.6	1000	975	3	Q-LVOL&BCRGR
860404	NDM00011/NK0751 S83-01	KNC00042	HRS	66.0	65.8	4.4	945	933	3	Q-LVOL&BCRGR
860405	" S83-02	KNC00042	HRS	66.0	65.6	4.5	970	945	2	
860406	NK0751/NDM00011 S83-02	KNC00043	HRS	66.8	66.5	4.6	995	976	2	
860407	" S83-10	KNC00043	HRS	63.4	63.9	4.5	915	946	3	Q-BCRGR
860408	" S83-12	KNC00043	HRS	64.0	64.3	4.5	935	954	3	Q-BCRGR
860409	" S83-13	KNC00043	HRS	65.4	65.3	4.5	920	914	2	Q-LVOL
860410	" S83-31	KNC00043	HRS	65.9	65.9	4.7	910	910	2	Q-LVOL

COMMENTS: Several of these HRS selections have promising overall quality equal or better than Wampum (see footnotes). Others, such as KNC00030 and 42, are close but slightly marginal in bread structure. See "Remarks" for major discrepancies.

P = Poor; Q = Questionable



NURSCO 8

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI
860411	DAWS	C1017419	SWW	61.2	72.5	0.40	87.6	8.3	51.7	3L	8.82
860412	LEWJAIN	C1017909	SWW	62.8	73.9	0.36	92.4	7.4	54.1	3L	9.50
860413	HILL 81	C1017954	SWW	61.2	73.6	0.38	90.7	7.8	51.8	2L	9.11
860414	SPN//63189-66-71/BEZ	ORCW8113	SWW	60.8	72.2	0.38	89.0	7.8	53.1	2L	9.29
860415	JOHN	WA6819	SWW	62.0	75.2	0.42	90.0	8.6	53.4	2L	9.12
860416	CREW	C1017951	CLUB	60.4	73.6	0.43	87.7	8.5	47.7	1L	9.17
860417	SPN/PI17343(M76-479)	5/ OR0836	SWW	59.6	75.3	0.39	92.0	8.7	52.7	2L	9.62
860418	MARIS HUNTSMAN/VH74521	WA56910	HWW	61.6	74.4	0.43	86.7	8.1	53.8	2L	8.44
860419	MARIS HUNTSMAN/VH74521	WA76910	HWW	60.8	74.9	0.44	86.7	8.8	54.1	1M	8.67
860420	BVR/CI15923//GNS	WA136912	HWW	60.6	74.8	0.46	85.5	9.0	54.1	2M	8.45
860421	BVR/CI15923//NGS	6/ WA46912	SWW	61.6	73.9	0.42	88.2	8.0	56.5	4L	9.25
860422	BVR/CI15923//NGS	5/ WA691213	SWW	61.6	74.1	0.42	88.9	8.5	56.0	4L	9.19
860423	MARIS HUNTSMAN/VH74521	5/ WA96910	SWW	60.0	73.0	0.39	89.4	8.2	52.3	1M	9.14
860424	WA6470/VH77539	5/ VH083046	SWW	60.8	73.2	0.40	89.1	8.6	53.5	1M	9.16
860425	LJN//VH75263, NCO/LUKE	6/ VH08401	SWW	61.6	71.7	0.38	88.2	8.1	54.4	2M	9.39
860426	WA6470//SRG/LUKE	6/ VH084119	SWW	60.8	73.2	0.38	90.1	9.5	56.1	3M	9.05
860427	ORG7237/WA6242//VPM11/MOS	6/ VH084145	SWW	59.2	72.3	0.41	86.9	8.4	54.6	3L	9.32
860428	VPM-1/MOS//CER//LUKE	VH084157	SWW	61.6	71.1	0.38	87.3	8.8	54.7	4L	9.31
860429	OASIS/WA6362//DAWS	6/ VH084163	SWW	60.0	73.1	0.37	90.4	9.4	55.1	3M	9.11
860430	DAWS/3/YMH/VH68310//CER	6/ VH084185	SWW	62.0	73.2	0.37	90.7	8.4	54.1	4L	9.11
860431	FARO/BRB//WA658	5/ VD083185	SWW	62.0	74.1	0.37	91.6	7.7	51.2	1L	9.20
860432	FARO/BRB//WA658	5/ VDD084012	SWW	62.8	73.6	0.37	91.4	7.6	51.4	2L	9.15
860433	WA6581//BARBEE/AM70207	5/ V084042	SWW	62.8	74.6	0.38	92.0	8.4	51.1	2L	9.42
860434	VH77353/JACMAR	6/ VC084070	SWW	58.0	73.0	0.43	86.9	8.9	52.0	2M	9.42
860435	V78037, OR680073/CERCO	VH084463	HWW	61.6	75.7	0.42	88.8	8.1	54.2	4L	8.67
860436	V77254, OAS/WA6362//DAWS	6/ VH084162	SWW	62.4	74.4	0.36	93.1	7.5	54.8	3L	9.32
860437	BBY/HYS//LUKE/3/LJN	6/ VH084303	SWW	61.6	71.6	0.36	89.3	7.8	53.0	4L	9.31
860438	V77096, VH76489/CER//LJN	6/ VH084150	SWW	62.8	71.7	0.37	89.0	8.1	54.5	4L	9.10
860439	JACMAR/WA6362	6/ VJ084511	SWW	62.0	71.9	0.35	90.2	7.1	52.4	4L	9.42
860440	VJ74435//VPM-1/MOS/3/LJN	6/ VJ084525	SWW	61.2	71.7	0.38	88.3	8.0	53.1	4L	9.16
860441	V77812/LJN	VH084168	SWW	62.4	67.5	0.38	82.9	8.6	52.2	6L	9.26
860442	ID745318/3/VH76429	6/ VH084257	SWW	62.0	71.0	0.39	87.0	8.9	53.2	4M	9.26
860443	VH77353/3/JACMAR	6/ VH084302	SWW	60.4	71.7	0.38	88.3	8.8	52.2	4M	9.22
860444	LJN/VPM-1/MOS/3/DAWS	VH084103	HWW	59.2	74.8	0.44	87.0	9.7	56.1	6M	8.47
860445	CB 1-1, V76675	6/ VM082766	SWW	60.4	71.7	0.37	88.8	7.4	53.1	6L	9.27

1/ Observed Values Corrected to 14% Moisture Basis.5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture Corrected to 8% Protein.6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 8% Protein.





NURSCO 8

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI
860446	DAWS//VH78297/CER	VH084225	SWW	62.0	71.4	0.39	87.0	8.1	52.6	2L	8.80
860447	DAWS/LUKE//VH68425	VH084239	SWW	62.0	70.7	0.38	86.9	7.6	51.0	5L	9.24
860448	VH78121/LEWJAIN	VH084437	SWW	61.6	69.0	0.40	83.7	9.3	53.7	3M	9.07
860449	OR680073/CER//VH77283	VH084466	HW	62.0	75.7	0.42	88.5	10.0	54.6	3M	8.55
860450	WA6240/WA645//LUKE	6/VJ082211	SWW	60.0	71.9	0.39	87.8	9.1	54.4	3M	9.14
860451	DAWS/VH77884	VH084210	SWW	61.2	69.8	0.40	84.6	8.5	54.8	6L	9.02
860452	LUKE/VH67375//LUKE	VH082252	SWW	57.6	71.5	0.39	87.3	8.3	53.8	3M	9.26
860453	LUKE//VHVH67375//VPM-1/MOS	5/VH082258	SWW	58.8	72.9	0.41	87.9	8.4	54.0	3M	9.55
860454	HILL 81/WA6242	VH082237	HW	62.0	75.5	0.39	90.0	8.8	53.2	3M	8.64
860455	LUKE/VH67375//CERCO	6/VH082253	SWW	62.0	71.9	0.39	87.7	8.6	54.4	6L	9.24
860456	N701423/LUKE//ID0101	6/VH082277	SWW	59.6	71.4	0.37	88.7	7.7	53.9	8L	9.27
860457	LEWJAIN/AMIG0-13	6/VH083021	SWW	60.4	72.4	0.36	90.4	8.4	54.0	3M	9.01
860458	CERCO	C1015922	HW	61.6	72.4	0.39	86.8	8.8	55.5	6L	8.70
860459	VH75491/DAWS	VH081479	SWW	62.0	70.9	0.39	86.3	8.1	53.7	4L	9.20
860460	DAWS//VH78497/LUKE	VH085028	SWW	60.8	70.7	0.40	85.8	7.1	53.5	7L	9.34
860461	VH77879/3/BBY/HYS//LUKE	5/VH085041	SWW	61.2	72.6	0.36	90.5	7.9	52.7	4L	9.52
860462	BBY/HYS//LUKE/3/LEWJAIN	5/VH085049	SWW	61.6	73.3	0.39	89.5	8.1	52.8	3L	9.71
860463	BBY/HYS//LUKE/3/LJN	6/VH085051	SWW	60.8	73.9	0.41	89.1	8.0	53.1	3L	9.22
860464	SPN//VH78367,V72156/CER	VH085064	HW	61.2	75.5	0.39	90.1	8.0	57.4	4L	8.55
860465	RDL/COP101/ORG/3/VH78238	6/VH085088	SWW	58.4	71.0	0.33	90.4	7.0	52.0	8L	9.46
860466	WA6580/791W26,MVR 5	VH085128	HW	61.2	73.4	0.42	86.3	9.6	56.2	8M	8.59
860467	DAWS/3/VH76429	5/VH085132	SWW	62.0	74.1	0.37	91.8	7.7	54.9	4L	9.34
860468	DAWS//LUKE/BR70-443-4	6/VJ085141	SWW	60.0	71.7	0.40	87.0	7.9	55.0	3L	9.22
860469	WIZARD/DAWS	VH085197	HW	60.4	75.4	0.40	89.7	8.9	51.7	2M	8.54
860470	SENTRY/LEWJAIN	VH085206	HW	61.2	76.6	0.38	91.9	8.4	58.1	4L	8.66
860471	MARKSMAN/DAWS	6/VH085208	SWW	58.0	71.9	0.36	89.7	7.0	52.0	2L	9.54
860472	BOUNTY/HILL 81	VH085213	SWW	61.2	69.2	0.38	84.8	8.3	55.2	6L	9.02
860473	HILL 81//V72111/CERCO	6/VH085233	SWW	61.6	72.7	0.37	89.9	7.8	53.7	4L	9.35
860474	VH78119//HILL 81	VH085285	SWW	59.2	69.5	0.37	86.0	7.6	55.3	6L	9.42
860475	VH729287/HILL 81	VH085352	SWW	61.6	70.8	0.39	86.2	7.5	54.3	8L	9.20
860476	VH79284/LEWJAIN	VH085563	SWW	60.0	70.6	0.38	86.5	7.5	54.9	8L	9.06
860477	VH78279//VPM-1/MOS	VH085379	SWW	60.4	68.6	0.40	83.0	8.7	54.6	8L	8.92
860478	VH80262//VPM-1/MOISSON	6/VH085382	SWW	63.2	71.0	0.38	87.2	9.3	55.1	8M	9.17
860479	VH80269/3/VPM-1/MOISSON	6/VH085392	SWW	58.4	71.4	0.40	86.6	8.0	56.3	8L	9.07
860480	OLA/LUKE//VPM-1/MOS	5/VH085410	SWW	60.0	73.3	0.43	87.3	9.9	53.0	2L	9.29

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NURSCO 8

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/		3/			4/		
860446	DAWS//VH78297/CER	VH084225	SWW	8.81							Q-FYELD
860447	DAWS/LUKE//VH68425	VH084239	SWW	9.19							Q-FYELD
860448	VH78121/LEWJAIN	VH084437	SWW	9.22							P-FYELD
860449	OR680073/CER//VH77283	VH084466	HWW	8.71							Q-FYELD
860450	WA6240/WA645//LUKE	VJ082211	SWW	9.26							P-FYELD
860451	DAWS/VH77884	VH084210	SWW	9.08							
860452	LUKE/VH67375//LUKE	VH082252	SWW	9.30							
860453	LUKE//VHVH67375//VPM-1/MOS	VH082258	SWW	9.59							
860454	HILL 81/WA6242	VH082237	HWW	8.70							
860455	LUKE/VH67375//CERCO	VH082253	SWW	9.30							Q-FYELD
860456	N701423/LUKE//ID0101	VH082277	SWW	9.24							Q-FYELD
860457	LEWJAIN/AMIGO-13	VH083021	SWW	9.06							
860458	CERCO	C1015922	HWW	8.76							
860459	VH75491/DAWS	VH081479	SWW	9.21							Q-FYELD
860460	DAWS//VH78497//LUKE	VH085028	SWW	9.24							Q-FYELD
860461	VH77879/3/BBY/HYS//LUKE	VH085041	SWW	9.51							
860462	BBY/HYS//LUKE/3/LEWJAIN	VH085049	SWW	9.72							
860463	BBY/HYS//LUKE/3/LJN	VH085051	SWW	9.22							
860464	SPN//VH78367,V72156/CER	VH085064	HWW	8.55							
860465	RDL/COP101/ORC/3/VH78238	VH085088	SWW	9.35							
860466	WA6580/791W26,MVR 5	VH085128	HWW	8.72							Q-FYELD
860467	DAWS/3/VH76429	VH085132	SWW	9.30							Hard, P-Mix
860468	DAWS//LUKE/BR70-443-4	VJ085141	SWW	9.21							
860469	WIZARD/DAWS	VH085197	HWW	8.61							
860470	SENTRY/LEWJAIN	VH085206	HWW	8.69							
860471	MARKSMAN/DAWS	VH085208	SWW	9.43							P-FYELD
860472	BOUNTY/HILL 81	VH085213	SWW	9.06							P-FYELD
860473	HILL 81//V72111/CERCO	VH085233	SWW	9.33							Q-FYELD&CODI
860474	VH78119//HILL 81	VH085285	SWW	9.38							P-FYELD
860475	VH729287/HILL 81	VH085352	SWW	9.14							Q-FYELD
860476	VH79284/LEWJAIN	VH085563	SWW	9.01							
860477	VH78279//VPM-1/MOS	VH085379	SWW	9.00							
860478	VH80262//VPM-1/MOISSON	VH085382	SWW	9.32							
860479	VH80269/3/VPM-1/MOISSON	VH085392	SWW	9.07							
860480	OLA/LUKE//VPM-1/MOS	VH085410	SWW	9.50							

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NURSCO 8

POMEROY, WA

C.J. PETERSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI
860481	VH08533/V72074/CER	6/VH085014	SWM	58.4	71.3	0.38	87.9	7.8	52.6	5L	9.31
860482	V79030, DAWS/KSK//HILL 81	5/VH085433	SWM	61.2	72.2	0.36	89.8	7.7	51.7	2L	9.41
860483	V79092, JCM/BRB//DAWS	5/VH085435	SWM	60.8	74.9	0.44	88.5	9.3	52.3	2M	9.14
860484	DAWS//CER/SPG/3/WA6697	VH085437	SWM	61.5	70.7	0.39	86.2	7.2	53.2	8L	8.92
860485	VM81760, TALENTO/DAWS	5/VH085439	SWM	61.2	73.9	0.40	89.9	8.4	53.0	2M	9.15
860486	NGS//VH79257, V72074/CER	VH085454	SWM	61.6	69.7	0.38	85.4	8.3	52.6	2M	9.21
860487	GREER/PECK//LENORE	VH085475	SWM	62.4	69.6	0.41	83.3	8.1	55.9	2M	9.16
860488	41-26/CR67205	6/VH085549	SWM	60.0	72.2	0.41	86.7	8.0	53.4	2M	9.52
860489	JACMAR/LEWJAIN	6/VD085004	SWM	61.2	71.5	0.38	87.7	8.0	52.3	3L	9.31
860490	NGS/VH72588//WA6581	6/VD085008	SWM	63.5	71.4	0.39	87.2	7.7	55.1	6L	9.36
860491	VD68245/PAHA/BARBEE	5/VD085163	SWM	60.4	70.8	0.39	86.3	9.3	48.1	1M	9.59
860492	VD682245/PAHA//SPN/PAHA	5/VD085167	SWM	63.6	71.6	0.40	86.8	9.0	48.4	1M	9.14



# NOTES ON THE HISTORY OF THE

The history of the city of New York is a subject of great interest to all who are concerned with the progress of the human race. The city has been the seat of many great events, and has played a prominent part in the history of the world. The first settlement was made by the Dutch in 1624, and the city has since that time been a center of commerce and industry. The city has been the seat of many great events, and has played a prominent part in the history of the world. The first settlement was made by the Dutch in 1624, and the city has since that time been a center of commerce and industry.

Year	Population	Area (sq. mi.)
1624	100	1.0
1650	1,000	1.0
1700	10,000	1.0
1750	15,000	1.0
1800	30,000	1.0
1850	100,000	1.0
1900	1,000,000	1.0
1950	2,000,000	1.0
2000	3,000,000	1.0

Source: U.S. Census Bureau

NURSCO 9

ROYAL SLOPE, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860493	NDM00011/ALONDRA S84-07	6/KNC000114	HRS	63.6	71.4	0.39	84.6	10.8	63.4	4M
860494	ALONDRA	6/NHS07664	HRS	63.9	68.5	0.52	73.0	11.5	63.2	2H
860495	NHS07664	KNC00016	HRS	64.4	72.3	0.44	82.3	10.5	64.8	4H
860496	NHS07664/NDM00002 S84-17	KNC00016	HRS	64.9	72.3	0.45	82.2	10.8	64.2	4M
860497	" S84-18	KNC00016	HRS	65.0	72.4	0.44	82.8	10.9	62.4	4M
860498	" S84-20	KNC00016	HRS	65.3	71.7	0.46	81.1	10.8	62.0	4M
860499	" S83-11	6/KNC00019	HRS	64.7	70.9	0.43	81.9	12.3	65.5	3H
860500	" S83-13	KNC00019	HRS	64.2	74.0	0.61	77.9	12.6	63.4	2H
860501	NDM00004/NHS07664 S83-26	6/KNC00020	HRS	63.0	73.6	0.44	85.3	12.7	64.8	4H
860502	NHS07664/NDM00009 S84-07	KNC00025	HRS	64.3	73.3	0.47	83.1	12.1	63.3	2H
860503	NHS07664	6/NHS07664	HRS	64.6	72.1	0.43	83.9	10.9	63.6	4H
860504	NK751	5/NK761011	HRS	64.6	74.1	0.47	85.1	10.8	65.0	5H
860505	NK000751/NDM00002 S84-06	KNC00028	HRS	63.9	72.3	0.44	82.7	10.7	65.3	5H
860506	NK000004/NK000751 S83-40	KNC00030	HRS	64.3	72.2	0.45	82.1	10.7	63.8	3M
860507	" S83-52	6/KNC00030	HRS	63.8	69.9	0.45	77.9	11.5	66.7	5H
860508	" S83-63	6/KNC00030	HRS	64.6	70.1	0.44	79.3	11.1	66.4	5H
860509	" S83-65	6/KNC00030	HRS	63.3	72.9	0.46	81.6	10.8	64.7	6M
860510	" S83-86	KNC00030	HRS	64.0	71.1	0.47	79.5	11.8	66.5	5H
860511	" S83-99	KNC00030	HRS	64.0	72.0	0.45	81.9	10.9	65.3	5H
860512	" S83-102	6/KNC00030	HRS	64.4	71.3	0.48	79.6	11.6	63.0	4M
860513	NK000751/NDM00005 S84-04	6/KNC00031	HRS	64.4	70.1	0.38	82.7	12.1	65.8	6H
860514	NDM00007/NK000751 S84-01	6/KNC00034	HRS	64.6	71.2	0.43	81.8	11.2	67.3	6H
860515	" S84-06	6/KNC00034	HRS	64.6	71.2	0.40	83.8	11.2	64.5	5H
860516	NK000751/NDM00008 S84-01	KNC00035	HRS	63.5	72.4	0.44	82.8	11.0	63.7	4M
860517	NDM00010/NK000751 S84-03	KNC00040	HRS	64.8	70.3	0.43	79.9	11.5	64.8	5H
860518	" S84-09	6/KNC00040	HRS	65.2	73.5	0.43	84.8	10.7	65.3	4H
860519	NK000751/NDM00011 S84-01	KNC00041	HRS	63.7	70.8	0.45	79.8	11.6	67.8	4H
860520	" S84-02	KNC00041	HRS	64.7	73.2	0.44	85.1	10.5	64.3	6M
860521	NDM00011/NK000751 S83-10	6/KNC00042	HRS	65.0	73.0	0.43	84.8	10.7	65.1	6M
860522	NK000751/NDM00011 S83-16	6/KNC00043	HRS	64.9	73.0	0.43	84.6	10.8	65.0	8M
860523	NK751	5/NK761011	HRS	64.8	71.8	0.42	83.6	10.7	65.3	8M
860524	WA006307/NMD00002 S84-05	KNC00044	HRS	63.3	71.0	0.41	81.2	11.0	64.8	2H
860525	NDM00003/WA006307 S84-01	6/KNC00047	HRS	64.3	70.9	0.40	82.9	11.4	65.0	3H
860526	WA006307/NDM00008 S84-03	KNC00052	HRS	63.6	72.1	0.40	84.8	10.7	65.3	4M
860527	WA006307/NDM00011 S84-03	KNC00057	HRS	64.0	70.9	0.41	83.1	9.9	63.0	5M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 9

ROYAL SLOPE, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860493	NDM00011/ALONDRA S84-07	KNC00014	HRS	63.9	64.1	2.4	900	912		2Q-MTIME
860494	ALONDRA		HRS	66.4	65.9	2.8	810	779		5P-FYELD, LVOL&BCRGR
860495	NHS07664	NHS07664	HRS	66.0	66.5	4.0	865	896		2Q-LVOL
860496	NHS07664/NDM00002 S84-17	KNC00016	HRS	65.7	65.9	2.9	880	892		5Q-P-BCRGR
860497	" S84-18	KNC00016	HRS	64.0	64.1	2.6	835	841		6P-BCRGR
860498	" S84-20		HRS							6P-BCRGR
860499	" S83-11	KNC00019	HRS	63.5	63.7	2.6	835	847		2Excellent Baking.
860500	" S83-13	KNC00019	HRS	68.5	67.2	3.1	1030	949		3Q-FASH&LVOL
860501	NDM00004/NHS07664 S83-26	KNC00020	HRS	66.7	65.1	2.8	980	881		2Q-LVOL
860502	NHS07664/NDM00009 S84-07	KNC00025	HRS	66.2	64.5	3.7	975	870		6P-LVOL&BCRGR
				66.1	65.0	2.4	925	857		
860503	NHS07664	NHS07664	HRS	65.2	65.3	3.7	875	881		3Q-LVOL&BCRGR
860504	NK751	NK761011	HRS	66.5	66.7	4.7	935	947		2
860505	NK000751/NDM00002 S84-06	KNC00028	HRS	66.7	67.0	4.0	890	909		4Q-LVOL&BCRGR
860506	NK000004/NK000751 S83-40	KNC00030	HRS	65.2	65.5	2.5	860	879		4Q-LVOL&BCRGR
860507	" S83-52	KNC00030	HRS	69.9	69.4	3.3	975	944		2Q-FYELD
860508	" S83-63	KNC00030	HRS	68.7	68.6	5.1	930	924		2Q-FYELD
860509	" S83-65	KNC00030	HRS	66.2	66.4	3.4	935	947		2
860510	" S83-86	KNC00030	HRS	69.0	68.2	3.4	1055	1005		4Q-BCRGR
860511	" S83-99	KNC00030	HRS	66.9	67.0	4.8	980	986		4Q-BCRGR
860512	" S83-102	KNC00030	HRS	65.3	64.7	3.1	955	918		2Q-MSCOR
860513	NK000751/NDM00005 S84-04	KNC00031	HRS	68.6	67.5	4.5	995	927		3Q-FYELD&BCRGR
860514	NDM00007/NK000751 S84-01	KNC00034	HRS	69.2	69.0	5.7	965	953		2
860515	" S84-06	KNC00034	HRS	66.4	66.2	4.3	975	963		3
860516	NK000751/NDM00008 S84-01	KNC00035	HRS	65.4	65.4	3.3	860	860		6P-LVOL&BCRGR
860517	NDM00010/NK000751 S84-03	KNC00040	HRS	67.0	66.5	4.5	935	904		4Q-P-BCRGR
860518	" S84-09		HRS							3Q-BCRGR
860519	NK000751/NDM00011 S84-01	KNC00041	HRS	70.1	69.5	3.5	1010	973		3Q-MSCOR&BCRGR
860520	" S84-02	KNC00041	HRS	65.5	66.0	4.4	925	956		6P-BCRGR
860521	NDM00011/NK000751 S83-10	KNC00042	HRS	66.5	66.8	4.2	985	1004		3Q-BCRGR
860522	NK000751/NDM00011 S83-16	KNC00043	HRS	66.5	66.7	4.6	970	982		3Q-BCRGR
860523	NK751	NK761011	HRS	66.7	67.0	4.7	940	959		1
860524	WA006307/NDM00002 S84-05	KNC00044	HRS	67.0	67.0	2.8	855	855		3P-LVOL Q-BCRGR
860525	NDM00003/WA006307 S84-01	KNC00047	HRS	67.1	66.7	2.8	930	905		3Q-BCRGR
860526	WA006307/NDM00008 S84-03	KNC00052	HRS	66.7	67.0	3.0	810	829		6P-LVOL&BCRGR
860527	WA006307/NDM00011 S84-03	KNC00057	HRS	63.6	64.7	3.9	765	833		4P-LVOL&BCRGR



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

NURSCO 9

HARD RED SPRING WHEAT

ROYAL SLOPE, WA

C. F. KONZAK

PAGE 2

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
860528	BEZ. 1/K6901532//ERA	6/ WA006307	HRS	64.3	72.1	1/ 0.42	83.4	1/ 10.5	3/ 64.8	6M





NURSCO 9

ROYAL SLOPE, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
860528	BEZ.1/K6901532//ERA	WA006307	HRS	66.0	66.5	3.9	880	911	2	
					<u>3/</u>			<u>4/</u>		

COMMENTS: Several of these selections have some promise (see footnotes), however, some are marginal in milling and/or baking (loaf volume and bread crumb score). The absence of a good control variety for reference makes the confidence of judgements questionable.

Q = Questionable; P = Poor



NURSCO 10

SAN JOAQUIN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
860529	BEZOSTAYA*166	619-2	HRS	62.9	72.7	0.36	89.5	11.9	62.0	3H	64.6
860531	(TOB X CIANO S)*ANZA	619-5	HRS	64.0	72.6	0.35	90.0	11.4	61.5	2H	63.6
860532	((INIA*CN0)*CALIDAD)*ANZA	6/ 619-8	HRS	64.6	72.1	0.35	89.2	10.8	62.6	3H	64.1
860535	ANZA (C1015284)	619-20	HRS	63.4	71.8	0.36	88.6	9.8	59.7	2M	60.2
860536	YECORA ROJO (C1017414)	619-21	HRS	63.0	73.0	0.35	90.2	12.3	63.1	5H	66.1
860538	YOLO	619-23	HRS	62.1	73.2	0.41	87.6	10.2	60.5	2H	61.4
860539	JUANILLO 168	619-24	TRIT	58.0	67.3	0.41	81.4	8.5	58.3	3L	57.5
860542	PORTOLA*166R	619-27	HRS	63.3	69.8	0.35	86.9	12.3	64.0	5H	67.0
860544	TZPP*2*ANZA	619-29	HRS	62.8	73.3	0.37	89.8	11.2	63.3	2H	65.2
860557	GENARO F81	619-45	HRS	62.6	68.7	0.39	83.6	11.0	61.5	4M	63.2
860558	GLENNSON M81, VEERY#1	619-46	HRS	63.5	71.7	0.44	84.1	11.1	61.6	4M	63.4
860561	VEERY#8 UC704	619-49	HRS	62.9	68.8	0.37	85.0	11.2	61.8	4M	63.7
860565	SERI*82 UC705	619-54	HWS	61.6	69.6	0.43	82.7	10.6	62.4	3H	63.7
860571	NURI S*ANZA	5/ 619-65	HRS	63.8	71.6	0.37	87.8	12.4	64.1	4H	67.2
860572	YEC S*ANZA	6/ 619-66	HRS	63.9	72.1	0.32	90.8	11.5	61.3	4M	63.5
860577	(R37*GHL121)*(KAL*BB)	619-72	HRS	63.1	66.1	0.36	82.8	11.3	64.9	5H	66.9
860580	JUP-BJY S'	619-75	HRS	63.3	67.5	0.38	83.1	11.5	62.9	5H	65.1
860582	HER-MAYA	619-79	HRS	63.9	71.6	0.39	87.0	11.9	64.4	5H	67.0
860586	RL6010-YEC.70'4	619-85	HRS	61.8	70.2	0.37	86.4	11.7	63.5	5H	65.9
860587	RL6010-YEC.70'6	6/ 619-86	HRS	63.8	71.3	0.37	87.3	10.9	63.6	5H	65.2
860588	AGATHA-YEC.70'4	6/ 619-87	HRS	60.6	71.5	0.36	88.4	12.2	61.1	4H	64.0
860589	YECORA 70.BB2	619-88	HRS	63.9	68.6	0.37	84.8	12.0	61.9	2H	64.6
860590	R6040-CJ71'3	619-89	HRS	62.5	71.6	0.35	89.0	12.1	61.8	5H	64.6
860591	AGATHA-CJ71'3	6/ 619-90	HRS	62.3	71.1	0.34	88.8	11.4	61.6	4H	63.7
860592	RL6040-CJ71'3	6/ 619-91	HRS	61.9	71.6	0.39	86.7	12.2	61.6	4H	64.5
860593	AGATHA-CJ71'5	619-92	HRS	61.9	70.6	0.37	86.9	11.4	62.0	4H	64.1
860594	RL6040-CJ71'6	6/ 619-93	HRS	61.1	68.1	0.37	84.0	12.1	62.4	5H	65.2
860595	AGATHA-CJ71'3	5/ 619-94	HRS	61.1	70.3	0.35	87.3	12.2	61.5	4H	64.4
860596	CAJEME 7.BB4	6/ 619-95	HRS	61.8	69.9	0.37	86.2	12.1	63.7	4H	66.5
860597	AGATHA-T171'4	6/ 619-96	HRS	63.0	71.3	0.32	90.2	12.4	64.0	4H	67.1
860599	Y50-H570.71**Y50'6	619-98	HRS	59.7	69.4	0.37	85.7	11.2	61.5	4H	63.4
860600	H570.71-AFM'4	6/ 619-99	HRS	61.3	70.2	0.38	85.6	11.9	61.3	3H	63.9
860601	RL6010-YEC 70'2	619-100	HRS	62.8	67.7	0.39	82.9	11.8	61.7	3H	64.2
860602	RL6010-YEC 70'60	6/ 619-101	HWS	63.4	71.1	0.36	87.7	11.1	61.1	3H	62.9
860603	AGATHA-YEC 70'3	6/ 619-102	HWS	61.8	71.5	0.36	88.0	10.8	62.0	MM	63.5

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 10

SAN JOAQUIN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	CODI	CODIC	LVOL	LVOLC	BCRGR	RMKS
				3/			4/		4/		
860529	BEZOSTAYA*166	619-2	HRS	63.7	2.4	8.20	8.27	885	829	5Q-MTIME, LVOL&BCRGR	
860531	(TOB X CIANO S)*ANZA	619-5	HRS	63.2	2.2	8.49	8.52 F	910	885	3Q-MTIME&BCRGR	
860532	((INIA*CN0)*CALIDAD)*ANZA	619-8	HRS	64.3	2.5	8.47	8.46 F	880	892	3Q-BCRGR	
860535	ANZA (C1015284)	619-20	HRS	61.4	1.9	8.39	8.29	750	824	8	
860536	YECORA ROJO (C1017414)	619-21	HRS	64.8	3.9	8.26	8.37	990	909	2	
860538	YOLO	619-23	HRS	62.2	1.9	8.65	8.59 F	880	930	8	
860539	JUANILLO 168	619-24	TRIT	60.0	2.8	8.25	8.05	525	680	9P-LVOL, BCRGR&FYELD	
860542	PORTOLA*166R	619-27	HRS	65.7	4.1	8.30	8.40 F	930	849	5Q-LVOL&BCRGR	
860544	TZPP#2*ANZA	619-29	HRS	65.0	2.4	8.39	8.40 F	990	978	6P-BCRGR	
860557	GENARO F81	619-45	HRS	63.2	2.4	8.10	8.10	825	825	8P-FYELD, LVOL&BCRGR	
860558	GLENNSON M81, VEERY#1	619-46	HRS	63.3	2.6	8.40	8.41	890	884	7P-BCRGR	
860561	VEERY#8, UC704	619-49	HRS	63.5	2.0	8.25	8.27	815	803	7P-MTIME, LVOL&BCRGR	
860565	SERI#82, UC705	619-54	HWS	64.1	2.5	8.06	8.03	795	820	8P-MTIME, LVOL&BCRGR	
860571	NURI S*ANZA	619-65	HRS	65.8	3.2	8.47	8.59 F	1000	913	2	
860572	YEC S*ANZA	619-66	HRS	63.0	2.5	8.69	8.73 G	920	889	3Q-BCRGR	
860577	(R37*GHL121)*(KAL*88)	619-72	HRS	66.6	3.3	8.16	8.19	835	816	3P-FYELD, BCRGR	
860580	JUP-BJY S	619-75	HRS	64.6	3.7	8.17	8.21	810	779	3P-FYELD, LVOL&BCRGR	
860582	HER-MAYA	619-79	HRS	66.1	3.3	8.25	8.32	915	859	3Q-LVOL&BCRGR	
860586	RL6010-YEC.70'4	619-85	HRS	65.2	3.7	8.27	8.33	865	822	3P-LVOL Q-BCRGR	
860587	RL6010-YEC.70'6	619-86	HRS	65.3	3.7	8.20	8.19	915	921	2	
860588	AGATHA-YEC.70'4	619-87	HRS	62.8	3.1	8.49	8.58 F	980	906	2	
860589	YECORA 70.882	619-88	HRS	63.6	2.1	8.00	8.08	825	763	5P-MTIME, LVOL&BCRGR	
860590	R6040-CJ71'3	619-89	HRS	63.5	3.3	8.14	8.23	960	892	4Q-LVOL&BCRGR	
860591	AGATHA-CJ71'3	619-90	HRS	63.3	3.1	8.32	8.36	960	935	3Q-BCRGR	
860592	RL6040-CJ71'3	619-91	HRS	63.3	3.1	8.11	8.21	985	911	2	
860593	AGATHA-CJ71'5	619-92	HRS	63.7	3.1	8.11	8.14	990	965	4Q-BCRGR	
860594	RL6040-CJ71'6	619-93	HRS	64.1	3.3	8.11	8.20	1010	942	2Q-FYELD	
860595	AGATHA-CJ71'3	619-94	HRS	63.2	2.9	8.25	8.35	1025	951	2	
860596	CAJEME 7.884	619-95	HRS	65.4	3.2	8.11	8.20	1005	937	2	
860597	AGATHA-T171'4	619-96	HRS	65.7	2.9	8.51	8.62 G	1035	948	3Q-BCRGR - Fir. color	
860599	Y50-H570.71**Y50'6	619-98	HRS	63.2	2.5	8.11	8.13	875	863	5Q-LVOL&BCRGR	
860600	H570.71-AFM'4	619-99	HRS	63.0	2.6	8.35	8.42 F	940	884	3Q-BCRGR	
860601	RL6010-YEC 70'2	619-100	HRS	63.4	2.6	8.11	8.18	870	820	4P-LVOL Q-BCRGR	
860602	RL6010-YEC 70'60	619-101	HWS	62.8	3.2	8.26	8.27	920	914	2 "White"	
860603	AGATHA-YEC 70'3	619-102	HWS	63.7	3.5	8.40	8.38	910	922	5Q-BCRGR	

COMMENTS: These had good protein levels for meaningful bread testing. Several appear (footnoted) promising in overall quality for HR bread wheats. Others had acceptable milling properties and loaf volumes but were coarse and heavy in crumb structure. Others had neither acceptable loaf volume or crumb texture; see "Remarks". These were also tested for pastry baking properties by the cookie test. Those that have fair and good cookie spreads are footnoted in the CODIC column with an F or G. It is noteworthy that selections #65, 66, 87, 96, and 99 appear to have both bread and cookie quality and may serve as "Dual Purpose" wheats.

Q = Questionable; P = Poor





NURSCO 11

SAN JOAQUIN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 3/		
860604	SHASTA*YECORA ROJO	618-16/	HRS	63.5	72.4	0.38	88.1	12.5	63.5	3H
860605	SHASTA*YECORA ROJO	618-26/	HRS	63.0	71.9	0.33	90.0	13.3	64.2	4H
860607	((TZPP*WTE)*3*NP63)*((INIA S'*(SON64*...))	618-6	HRS	62.9	70.5	0.40	84.9	12.6	62.7	2H
860608	((TZPP*WTE)*3*NP63)*((INIA S'*(SON64*...))	618-7	HRS	63.2	72.2	0.40	86.9	11.5	62.7	3M
860609	SHASTA*CORCORAUQUE F75	618-13	HRS	63.5	71.3	0.38	87.2	11.7	63.3	3H
860610	YECORA ROJO (C1017414)	618-14	HRS	63.2	72.4	0.34	90.1	12.6	64.2	5H
860611	ANZA (C1015284)	618-15	HRS	62.9	72.5	0.38	88.1	10.5	59.1	2M
860612	((TOB66*CN0 S')*ANZA)*((C113232*R50*...))	618-176/	HRS	63.7	73.3	0.35	90.5	12.5	63.9	2H
860615	((CN0*166)*ANZA)*SHASTA	618-216/	HRS	64.0	71.5	0.38	87.3	11.4	61.9	2H
860618	((C113232*R50)*ANZA)*TANORI 71	618-27	HRS	64.2	72.3	0.32	91.0	10.7	65.7	4H
860619	((C113232*R50)*ANZA)*TANORI 71	618-28	HRS	64.3	69.9	0.31	89.1	11.4	65.5	4H
860620	((C113232*R50)*ANZA)*TANORI 71	618-296/	HRS	64.5	72.1	0.34	89.8	11.7	64.7	4H
860623	((TOB*CN0)*ANZA)*SHASTA	618-36	HRS	62.6	71.6	0.38	87.1	12.0	63.2	2H
860624	((166*ANZA)*YECORA ROJO	618-38	HRS	62.8	70.1	0.34	88.0	12.1	64.1	4H
860625	((166*ANZA)*YECORA ROJO	618-396/	HRS	65.1	73.0	0.35	90.1	12.0	64.7	3H
860626	((166*ANZA)*YECORA ROJO	618-406/	HRS	61.3	69.9	0.35	87.0	12.0	63.3	6M
860628	(JUSTIN*SC66)*((KURTZMAN*ANZA)	618-436/	HRS	63.0	73.0	0.35	90.5	11.4	62.4	4M
860629	((BB S'*(ANZA)*((166*ANZA)	618-44	HRS	65.1	71.6	0.39	86.7	10.8	63.5	7M
860630	((BB S'*(ANZA)*((166*ANZA)	618-45	HRS	64.8	72.7	0.37	89.0	10.3	61.8	4M
860638	((166R*CHEYENNE)*((KURTZMAN*ANZA)	618-59	HRS	65.4	71.5	0.36	88.5	11.7	62.6	2H
860640	((D6802*2*166)*((KURTZMAN*ANZA)	618-62	HRS	63.2	70.3	0.36	86.7	11.0	63.8	4H
860642	((166R*2*R50)*((KURTZMAN*ANZA)	618-64	HRS	62.2	71.0	0.35	88.0	10.8	62.8	3H
860643	((166R*2*R50)*((KURTZMAN*ANZA)	618-65	HRS	63.9	74.1	0.33	92.6	11.0	62.8	3M
860645	((KURTZMAN*SON64)*166R	618-68	HRS	63.6	71.0	0.35	88.1	11.8	63.0	2H
860646	((KURTZMAN*ANZA)*TANORI 71	618-71	HRS	64.0	70.7	0.40	85.5	11.5	65.3	2H
860653	((166*22*OLESEN)*166R)*YECORA ROJO	618-80	HRS	63.4	70.3	0.33	88.7	11.5	63.9	4H
860654	(TRANSEC*3*SON64)*SHASTA	618-81	HRS	63.7	72.3	0.35	89.4	13.0	62.9	2H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 125 Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 11

SAN JOAQUIN, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860604	SHASTA*YECORA ROJO	618-1	HRS	65.7	65.2	2.6	950	919	2 Q-LVOL	
860605	SHASTA*YECORA ROJO	618-2	HRS	67.2	65.9	2.8	1050	969	2	
860607	((TZPP*WTE)*3*NP63)*((INIA'S'*(SONG4*...))	618-6	HRS	65.0	64.4	1.8	955	918	3 P-MTIME Q-LVOL&BCRGR	
860608	((TZPP*WTE)*3*NP63)*((INIA S'*(SONG4*...))	618-7	HRS	62.9	63.4	1.9	805	836	8 P-MTIME, LVOL&BCRGR	
860609	SHASTA*CORCORQUE F75	618-13	HRS	64.7	65.0	2.6	805	824	6 P-LVOL&BCRGR	
860610	YECORA ROJO (C1017414)	618-14	HRS	66.5	65.9	3.3	1015	978	2	
860611	ANZA (C1015284)	618-15	HRS	59.3	60.8	1.9	800	893	8	
860612	((TOB66*CN0 S')*ANZA)*((C113232*R50...))	618-17	HRS	66.1	65.6	2.1	1015	984	3 Q-BCRGR&MTIME	
860615	((CN0*166)*ANZA)*SHASTA	618-21	HRS	63.0	63.6	1.8	895	932	5 P-MTIME&BCRGR	
860618	((C113232*R50)*ANZA)*TANORI 71	618-27	HRS	66.1	67.4	3.2	940	1021	4 Q-BCRGR	
860619	((C113232*R50)*ANZA)*TANORI 71	618-28	HRS	66.6	67.2	3.2	875	912	3 Q-LVOL&BCRGR	
860620	((C113232*R50)*ANZA)*TANORI 71	618-29	HRS	66.1	66.4	3.3	975	994	3 Q-BCRGR	
860623	((TOB*CN0)*ANZA)*SHASTA	618-36	HRS	64.9	64.9	2.0	915	915	6 P-MTIME&BCRGR	
860624	((166*ANZA)*YECORA ROJO	618-38	HRS	65.9	65.8	2.9	905	899	3 Q-LVOL&BCRGR	
860625	((166*ANZA)*YECORA ROJO	618-39	HRS	66.4	66.4	2.8	945	945	4 Q-BCRGR	
860626	((166*ANZA)*YECORA ROJO	618-40	HRS	65.0	65.0	3.9	955	955	2	
860628	((JUSTIN*SC66)*((KURTZMAN*ANZA)	618-43	HRS	63.5	64.1	2.6	900	937	3 Q-BCRGR	
860629	((BB'S'*ANZA)*((166*ANZA)	618-44	HRS	64.0	65.2	3.7	720	794	6 P-LVOL&BCRGR	
860630	((BB S'*ANZA)*((166*ANZA)	618-45	HRS	61.8	63.5	2.6	855	960	6 P-BCRGR	
860638	((166R*CHEYENNE)*((KURTZMAN*ANZA)	618-59	HRS	64.0	64.3	2.0	910	929	6 P-MTIME&BCRGR	
860640	((D6802*2*166)*((KURTZMAN*ANZA)	618-62	HRS	64.5	65.5	3.4	820	882	2 P-LVOL	
860642	((166R*2*R50)*((KURTZMAN*ANZA)	618-64	HRS	63.3	64.5	2.9	835	909	3 Q-LVOL&BCRGR	
860643	((166R*2*R50)*((KURTZMAN*ANZA)	618-65	HRS	63.5	64.5	2.0	905	967	4 P-MTIME Q-BCRGR	
860645	((KURTZMAN*SONG4)*166R	618-68	HRS	64.5	64.7	2.1	875	887	6 P-MTIME&BCRGR	
860646	((KURTZMAN*ANZA)*TANORI 71	618-71	HRS	66.5	67.0	2.1	925	956	6 P-MTIME&BCRGR	
860653	((166*22*OLESEN)*166R)*YECORA ROJO	618-80	HRS	65.1	65.6	3.2	885	916	3 Q-LVOL&BCRGR	
860654	((TRANSEC*3*SONG4)*SHASTA	618-81	HRS	65.6	64.6	2.1	900	838	4 Q-MTIME, LVOL&BCRGR	

COMMENTS: Good protein level. A few selections footnoted are approaching the overall quality of Yecora Rojo. See "Remarks" for major deficiencies of the other selections.

P = Poor; Q = Questionable



NURSCO 12

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
860656	BEZOSTAYA*166	610-2	HRS	64.4	74.3	0.42	88.1	10.3	58.0	3M	61.0
860657	BB S*ANZA	610-4	HRS	65.8	69.8	0.30	89.5	10.6	60.4	2H	63.7
860658	(TOB*CIANO S)*ANZA	610-5	HRS	65.6	72.3	0.32	91.0	10.8	60.2	2M	63.7
860659	((INIA*ONO)*CALIDAD)*ANZA	610-8	HRS	64.0	68.2	0.35	85.2	10.1	61.8	3M	64.6
860662	JILOUERO S*ANZA	610-17	HRS	64.9	70.1	0.31	89.4	10.6	61.2	2H	64.5
860665	ANZA (C105284)	610-20	HRS	65.2	68.9	0.35	86.0	7.6	57.6	1M	57.9
860666	YECORA ROJO (C1017414)	610-21	HRS	63.7	70.9	0.36	87.9	9.9	61.0	7M	63.6
860667	TADINIA	610-22	HRS	64.8	72.9	0.30	92.9	8.3	59.2	2L	60.2
860668	YOLO	610-23	HRS	63.6	70.0	0.38	85.6	8.4	57.6	2L	58.7
860669	JUANILLO 168	610-24	HRS	59.7	68.0	0.46	79.3	6.5	58.5	2L	57.7
860672	PORTOLA*166R	610-27	HRS	64.5	69.4	0.33	87.6	10.2	61.2	3M	64.1
860674	TZPP*2*ANZA	610-29	HRS	65.0	71.9	0.34	89.5	10.2	59.2	3M	62.1
860675	TZPP*2*ANZA	610-30	HRS	65.5	66.9	0.35	83.9	9.2	59.3	3M	61.2
860678	TZPP*2*ANZA	610-33	HRS	65.5	71.1	0.31	90.3	9.5	59.9	3M	62.1
860680	TZPP*2*ANZA	610-35	HRS	65.7	68.3	0.30	88.0	9.2	59.1	3M	61.0
860681	TZPP*2*ANZA	610-36	HRS	65.6	69.2	0.31	88.3	9.3	61.1	3M	63.1
860684	S108	610-41	HRS	64.1	71.4	0.38	87.2	10.7	58.7	1M	62.1
860685	S149	610-42	HRS	63.7	66.0	0.38	81.2	7.7	59.1	2M	59.5
860686	ANZA/S149	610-43	HRS	64.4	68.9	0.41	83.0	7.2	56.5	1M	56.4
860687	S149	610-44	HRS	64.2	68.3	0.35	85.6	9.4	50.0	1M	52.1
860688	GENARO F81	610-45	HRS	64.0	67.2	0.39	82.0	9.0	59.5	3M	61.2
860689	GLENNSON M81, VEERY#1	610-46	HRS	64.8	66.5	0.41	80.6	8.6	57.6	3L	58.9
860696	CUCKOO S'	610-53	HWS	64.5	64.5	0.35	81.3	8.0	62.7	4M	63.4
860697	SERI' 82', UC705	610-54	HWS	63.3	64.0	0.47	74.8	7.3	59.7	2L	59.7
860698	CNO-INIA S'*BB	610-55	HWS	64.7	64.2	0.36	80.6	8.7	61.7	3M	63.1
860699	FUNLALEA (ROMANIA)	610-56	HWS	64.6	65.2	0.38	80.8	8.0	60.8	2L	61.5
860700	DGA-BJY S'	610-57	HWS	63.0	68.6	0.37	84.8	8.2	61.2	3L	62.1
860701	(4777(2))*FKN-GB/VEE'S')BUC'S'-PVM'S'	610-58	HWS	65.6	66.3	0.46	77.6	7.7	59.3	3L	60.7
860702	MAYA-NAC	610-59	HWS	64.7	68.0	0.36	84.4	8.7	62.7	3M	64.1
860703	(RRV-WW15/BJ'S'-ON(2)*BON)NAC	610-60	HWS	65.8	69.1	0.36	85.8	8.9	61.1	3M	62.7

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 12

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	CODI	CODIC	LVOL	LVOLC	BCRGR	RMKS
				3/			4/		4/		
860656	BEZOSTAYAY*166	610-2	HRS	59.7	2.3	8.36	8.47 F	700	619	8	P-MTIME, LVOL&BCRGR
860657	BB S'*ANZA	610-4	HRS	62.1	2.2	8.25	8.38	790	691	8	" " " "
860658	(TOB*CIANO S)*ANZA	610-5	HRS	61.9	1.5	8.45	8.59 F	795	683	8	" " " "
860659	((INIA*CNO)*CALIDAD)*ANZA	610-8	HRS	63.5	2.3	8.47	8.56 F	775	707	8	" " " "
860662	JILOUERO S*ANZA	610-17	HRS	62.9	2.1	8.34	8.47 F	825	726	7	" " " "
860665	ANZA (CI05284)	610-20	HRS	59.3	1.8	8.51	8.40	500	587	9	" " " "
860666	YECORA ROJO (CI017414)	610-21	HRS	62.7	3.4	8.39	8.46 F	810	754	4	" " " "
860667	TADINIA	610-22	HRS	60.9	2.0	8.54	8.48	645	688	9	P-MTIME, LVOL&BCRGR
860668	YOLO	610-23	HRS	59.3	1.9	8.60	8.55 F	700	737	9	" " " "
860669	JUANILLO 168	610-24	HRS	60.2	1.9	8.44	8.24	400	555	9	" " " "
860672	PORTOLA*166R	610-27	HRS	62.9	2.4	8.35	8.45	810	736	8	P-MTIME, LVOL&BCRGR
860674	TZPP*2*ANZA	610-29	HRS	60.9	1.5	8.54	8.63 G	835	761	6	" " " "
860675	TZPP*2*ANZA	610-30	HRS	61.0	1.7	8.36	8.38	735	723	6	" " " "
860678	TZPP*2*ANZA	610-33	HRS	61.6	1.8	8.61	8.65 G	740	709	8	" " " "
860680	TZPP*2*ANZA	610-35	HRS	60.8	2.4	8.35	8.37	625	613	8	" " " "
860681	TZPP*2*ANZA	610-36	HRS	62.8	2.3	8.46	8.49 F	640	621	8	P-MTIME, LVOL&BCRGR
860684	S108	610-41	HRS	60.4	1.3	8.50	8.64 G	675	570	9	" " " "
860685	S149	610-42	HRS	60.8	1.7	8.60	8.50 F	550	631	9	" " " "
860686	ANZA/S149	610-43	HRS	58.2	1.7	8.59	8.44	490	602	9	" " " "
860687	S149	610-44	HRS	51.7	1.7	8.36	8.39	475	450	9	" " " "
860688	GENARO F81	610-45	HRS	61.2	2.3	8.24	8.24	620	620	9	P-MTIME, LVOL&BCRGR
860689	GLENNSON M81, VEERY#1	610-46	HRS	59.3	2.4	8.29	8.26	640	665	9	" " " "
860696	CUCKOO S'	610-53	HWS	64.4	3.0	8.16	8.08	550	612	9	" " " "
860697	SERI 82', UC705	610-54	HWS	61.4	2.3	8.26	8.13	525	630	9	" " " "
860698	CNO-INIA S'*BB	610-55	HWS	63.4	2.3	7.99	7.96	560	579	9	" " " "
860699	FUNLALEA (ROMANIA)	610-56	HWS	62.5	2.2	8.25	8.17	580	642	9	P-MTIME, LVOL&BCRGR
860700	DGA-BJY S	610-57	HWS	62.9	3.0	8.32	8.26	670	720	8	" " " "
860701	(4777(2)*FKN-GB/VEE'S')BUC'S'-PVN'S'	610-58	HWS	62.0	2.4	8.17	8.07	540	621	9	" " " "
860702	MAYA-NAC	610-59	HWS	64.4	2.5	8.11	8.09	700	719	8	" " " "
860703	(RRV-WW15/BJ'S'-ON(2)*BON)NAC	610-60	HWS	62.8	2.5	8.44	8.43	675	681	8	" " " "

COMMENTS: None of these selections grown at Davis with low protein levels appear to have any promise for bread baking wheats. Yecora Rojo was also below expected level for loaf volume and bread crumb texture, but all others were significantly poorer with most similar to Anza. These were baked in a cookie test and the selections which were strongest in pastry quality are footnoted in the Corrected Cookie Diameter column (CODIC) with an "F" for fair and "G" for good.

P = Poor



NURSCO 13

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 4/		
860706	(ANZA*TOB66)*(KURTZMANN*ANZA)	627-14	HRS	64.7	73.4	0.32	92.2	10.0	62.7	3M
860708	(166R*CHEYENNE)*SHASTA	6/ 627-19	HRS	65.0	71.5	0.38	87.3	9.2	61.7	8M
860709	ANZA (C1015284)	627-20	HRS	64.5	72.4	0.33	90.6	9.0	59.5	2M
860710	YECORA ROJO (C1017414)	627-21	HRS	63.7	71.1	0.34	88.7	10.7	62.8	5H
860711	(166R*CHEYENNE)*(KURTZMAN*ANZA)	627-22	HRS	64.3	70.9	0.37	86.9	10.2	62.6	4M
860713	(166R*CHEYENNE)*(KURTZMAN*ANZA)	627-25	HRS	65.0	70.3	0.37	86.2	9.7	60.5	4M
860714	(D6802*2*166)*SHASTA	627-29	HRS	64.9	70.9	0.34	88.5	10.0	62.5	3H
860715	(166*2*R50)*(KURTZMAN*ANZA)	627-30	HRS	63.9	72.9	0.37	89.1	10.1	60.5	3M
860716	(KURTZMAN*SON64)*SHASTA	6/ 627-36	HRS	65.2	72.8	0.32	91.8	9.7	61.3	4M
860717	(KURTZMAN*SON64)*YECORA ROJO	6/ 627-37	HRS	64.0	70.7	0.32	89.4	9.4	61.1	6M
860718	YOLO	627-40	HRS	64.2	72.9	0.34	90.9	8.9	57.5	3M
860719	TADINIA	627-41	HRS	62.7	71.6	0.35	88.8	9.1	57.0	2L
860720	(KURTZMAN X SON64)*(ANZA*(D6301*NA160))	627-47	HRS	64.9	68.7	0.34	86.3	9.0	63.0	4M
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860706	(ANZA*TOB66)*(KURTZMANN*ANZA)	627-14	HRS	64.4	64.4	2.2	875	875	4 Q-MTIME&BCRGR	
860708	(166R*CHEYENNE)*SHASTA	627-19	HRS	62.6	63.4	3.3	775	825	4 Q-BCRGR	
860709	ANZA (C1015284)	627-20	HRS	60.2	61.2	1.9	800	862	8 P-MTIME&BCRGR	
860710	YECORA ROJO (C1017414)	627-21	HRS	65.2	64.5	4.2	880	837	2	
860711	(166R*CHEYENNE)*(KURTZMAN*ANZA)	627-22	HRS	64.5	64.3	2.4	850	838	5 Q-MTIME&BCRGR	
860713	(166R*CHEYENNE)*(KURTZMAN*ANZA)	627-25	HRS	61.9	62.2	2.5	785	804	5 Q-MTIME&BCRGR	
860714	(D6802*2*166)*SHASTA	627-29	HRS	64.2	64.2	2.5	830	830	4 Q-MTIME&BCRGR	
860715	(166*2*R50)*(KURTZMAN*ANZA)	627-30	HRS	62.3	62.2	2.1	870	864	4 Q-MTIME&BCRGR	
860716	(KURTZMAN*SON64)*SHASTA	627-36	HRS	62.7	63.0	2.4	860	879	3	
860717	(KURTZMAN*SON64)*YECORA ROJO	627-37	HRS	62.2	62.8	3.2	845	882	3	
860718	YOLO	627-40	HRS	58.1	59.2	2.0	855	923	7 P-MTIME&BCRGR	
860719	TADINIA	627-41	HRS	57.8	58.7	2.1	710	766	8 P-MTIME, LVOL&BCRGR	
860720	(KURTZMAN X SON64)*(ANZA*(D6301*NA160))	627-47	HRS	63.7	64.7	2.5	750	812	8 Q-FYELD	

1/ Observed Values Corrected to 14% Moisture.3/ Absorption at 14% Moisture Corrected to 10% Protein.4/ Observed Values Corrected to 10% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Selections #19, 36, and 37 have some promise in overall quality, but appear poorer in crumb grain than Yecora Rojo. See "Remarks" for deficiencies of the other selections.

Q = Questionable; P = Poor



NURSCO 14

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860722	(KURTZMAN*SON64)*(ANZA*(D6301*NA160))	6/ 656-7	HRS	64.6	71.3	0.33	89.8	11.8	62.6	3H
860727	(KURTZMAN*ANZA)*TANORI 71	6/ 656-14	HRS	64.1	73.4	0.38	89.2	11.4	61.0	2H
860729	YECORA ROJO (C1017414)	656-21	HRS	63.8	71.3	0.36	87.9	11.1	63.8	5H
860730	(KURTZMAN*ANZA)*SHASTA	656-22	HRS	63.2	71.1	0.33	89.4	11.1	62.3	3H
860738	(KURTZMAN*ANZA)*SHASTA	6/ 656-33	HRS	63.9	70.7	0.41	84.8	11.8	61.7	2H
860746	(ANZA*GAINES)*(AZTECA 67*ANZA)	656-42	HRS	63.9	68.6	0.37	84.8	11.5	62.0	2H
860747	(ANZA*GAINES)*(AZTECA 67*ANZA)	656-43	HRS	63.2	69.6	0.36	86.1	10.7	60.8	4H
860749	(ANZA*GAINES)*(AZTECA 67*ANZA)	656-45	HRS	63.5	68.3	0.51	77.0	11.6	62.1	4H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860722	(KURTZMAN*SON64)*(ANZA*(D6301*NA160))	656-7	HRS	65.1	64.3	2.8	995	945	4	4 Q-MTIME
860727	(KURTZMAN*ANZA)*TANORI 71	656-14	HRS	62.1	61.7	2.1	955	930	3	3 Q-MTIME
860729	YECORA ROJO (C1017414)	656-21	HRS	65.6	65.5	4.0	920	914	3	3 Q-MTIME
860730	(KURTZMAN*ANZA)*SHASTA	656-22	HRS	64.1	64.0	3.1	885	879	5	5 Q-MTIME
860738	(KURTZMAN*ANZA)*SHASTA	656-33	HRS	63.2	62.4	2.0	920	870	3	3 Q-MTIME
860746	(ANZA*GAINES)*(AZTECA 67*ANZA)	656-42	HRS	64.2	63.7	2.3	930	899	7	7 P-BCRGR&MTIME
860747	(ANZA*GAINES)*(AZTECA 67*ANZA)	656-43	HRS	62.2	62.5	3.0	815	834	6	6 Q-LVOL&BCRGR
860749	(ANZA*GAINES)*(AZTECA 67*ANZA)	656-45	HRS	64.4	63.8	3.5	860	823	4	4 Q-FYELD, LVOL&BCRGR

1/ Observed Values Corrected to 14% Moisture.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Selections 656-7, 14, and 33 appear somewhat promising in both milling and baking quality. Selection #33, however, is really too short in dough development time to be generally accepted.

Q = Questionable; P = Poor





NURSCO 15

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860752	((((INIA*CN0)*CALIDAD)*ANZA)*((D6802*2*166	616-2	HRS	65.2	69.8	0.37	86.1	9.5	62.7	3M
860753	((((INIA*CN0)*CALIDAD)*ANZA)*((D6802*2*166	616-4	HRS	65.1	68.5	0.36	85.1	9.8	62.2	3M
860755	((((INIA*CN0)*CALIDAD)*ANZA)*((KURTZMAN*..	616-8	HRS	65.3	69.2	0.36	86.0	9.9	62.3	3M
860756	((JALAL*2*MENG-8156),ROBIN*SHASTA	616-9	HRS	64.3	71.6	0.35	89.0	9.9	62.1	3M
860757	((((INIA*CN0)*CALIDAD)*ANZA)*((KURTZMAN*..	616-10	HRS	65.0	69.4	0.33	87.8	10.5	62.2	2H
860758	((((INIA*CN0)*CALIDAD)*ANZA)*((KURTZMAN*..	616-11	HRS	64.9	68.1	0.36	84.8	10.4	61.1	2H
860759	YECORA ROJO (C1017414)	616-14	HRS	63.2	69.9	0.37	85.9	11.0	64.0	5H
860760	ANZA (C1015284)	616-15	HRS	64.1	72.2	0.35	89.5	8.9	59.5	2M
860761	((C113232*R50)*ANZA)*((SC66*PI190982*..	616-16	HRS	64.4	68.5	0.37	84.4	10.6	63.7	3H
860762	((C113232*R50)*ANZA)*((SC66*PI190982*..	616-17	HRS	62.4	69.9	0.41	84.1	11.7	63.2	4H
860763	((166R*CHEYENNE)*SHASTA	616-23	HRS	63.2	68.3	0.55	74.7	11.2	63.3	2H
860764	((166R*CHEYENNE)*SHASTA	616-24	HRS	62.5	69.5	0.49	79.5	10.9	61.3	4M
860767	((166R*CHEYENNE)*SHASTA	616-27	HRS	63.7	69.5	0.36	86.2	11.4	62.3	4H
860770	((166R*CHEYENNE)*((KURTZMAN*ANZA)	616-30	HRS	62.9	71.2	0.36	87.7	12.4	61.9	2H
860771	((166R*CHEYENNE)*((KURTZMAN*ANZA)	616-31	HRS	62.8	70.3	0.40	84.8	10.9	62.3	3H
860772	((166R*CHEYENNE)*((KURTZMAN*ANZA)	616-32	HRS	64.0	72.0	0.38	87.6	11.1	61.7	3H
860773	((166R*CHEYENNE)*((KURTZMAN*ANZA)	616-33	HRS	59.8	68.6	0.42	82.2	10.0	61.9	3H
860774	((166R*CHEYENNE)*((KURTZMAN*ANZA)	616-34	HRS	62.8	70.7	0.43	84.0	11.5	62.0	3H
860776	((D6802*2*166)*((KURTZMAN*ANZA)	616-36	HRS	63.2	70.6	0.40	85.4	11.1	63.9	5H
860778	((D6802*2*166)*SHASTA	616-38	HRS	63.0	70.5	0.38	86.1	11.0	61.0	4M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 15

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860752	(( (( INIA*CN0)*CALIDAD)*ANZA**((D6802*2*166	616-2	HRS	62.9	64.4	2.2	800	893	6 P-MTIME, LVOL&BCRGR	
860753	(( (( INIA*CN0)*CALIDAD)*ANZA**((D6802*2*166	616-4	HRS	62.7	63.9	1.9	795	869	8 P-MTIME, LVOL&BCRGR	
860755	(( (( INIA*CN0)*CALIDAD)*ANZA**((KURTZMAN**..	616-8	HRS	62.9	64.0	1.8	800	868	6 P-MTIME, LVOL&BCRGR	
860756	(( (( INIA*CN0)*CALIDAD)*ANZA**((KURTZMAN**..	616-9	HRS	62.7	63.8	1.9	815	883	6 P-MTIME, LVOL&BCRGR	
860757	(( (( INIA*CN0)*CALIDAD)*ANZA**((KURTZMAN**..	616-10	HRS	63.4	63.9	2.2	840	871	6 P-MTIME, LVOL&BCRGR	
860758	(( (( INIA*CN0)*CALIDAD)*ANZA**((KURTZMAN**..	616-11	HRS	62.2	62.8	1.9	805	842	6 P-MTIME, LVOL&BCRGR	
860759	YECORA ROJO (C1017414)	616-14	HRS	65.7	65.7	4.6	915	915	3	
860760	ANZA (C1015284)	616-15	HRS	59.1	61.2	1.9	795	925	8	
860761	(( (( C113232*R50)*ANZA)*(( SC66*PI190982**..	616-16	HRS	65.0	65.4	2.4	725	750	5 P-MTIME, LVOL&BCRGR	
860762	(( (( C113232*R50)*ANZA)*(( SC66*PI190982**..	616-17	HRS	65.6	64.9	3.0	950	907	3	
860763	(( (( 166R*CHEYENNE)*SHASTA	616-23	HRS	65.2	65.0	2.2	900	888	5 Q-MTIME, BCRGR&FYELD	
860764	(( (( 166R*CHEYENNE)*SHASTA	616-24	HRS	62.9	63.0	2.3	865	871	4 Q-MTIME&BCRGR	
860767	(( (( 166R*CHEYENNE)*SHASTA	616-27	HRS	64.4	64.0	2.5	905	880	2	
860770	(( (( 166R*CHEYENNE)*((KURTZMAN*ANZA)	616-30	HRS	65.0	63.6	2.1	955	868	4 Q-MTIME&BCRGR	
860771	(( (( 166R*CHEYENNE)*((KURTZMAN*ANZA)	616-31	HRS	63.9	64.0	2.3	825	831	6 Q-MTIME&BCRGR	
860772	(( (( 166R*CHEYENNE)*((KURTZMAN*ANZA)	616-32	HRS	63.5	63.4	2.9	860	854	3	
860773	(( (( 166R*CHEYENNE)*((KURTZMAN*ANZA)	616-33	HRS	62.6	63.6	3.4	845	907	3 Q-FYELD	
860774	(( (( 166R*CHEYENNE)*((KURTZMAN*ANZA)	616-34	HRS	64.2	63.7	2.9	905	874	4 Q-BCRGR	
860776	(( (( D6802*2*166)*((KURTZMAN*ANZA)	616-36	HRS	65.7	65.6	4.0	850	844	2 Q-LVOL	
860778	(( (( D6802*2*166)*SHASTA	616-38	HRS	62.7	62.7	2.2	875	875	5 P-MTIME&BCRGR	

COMMENTS: Most of these selections are characterized by short dough development times and low loaf volumes with heavy crumb grains. The exceptions which appear promising are footnoted.

P = Poor; Q = Questionable



DAVIS, CA

C.O. QUALSET

NURSCO 16

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
860780	SHASTA*YECORA ROJO	6/ 614-1	HRS	64.6	71.6	0.42	85.2	11.3	61.5	3H
860781	SHASTA*YECORA ROJO	614-3	HRS	65.4	72.8	0.35	90.2	11.7	61.3	3H
860782	SHASTA*YECORA ROJO	614-4	HRS	65.0	71.5	0.33	89.8	12.2	62.4	3H
860784	YECORA ROJO (C1017414)	614-14	HRS	64.1	70.9	0.37	87.3	10.6	62.0	5H
860785	((TZPP*WTE)*NP63)*(INIA'S' (SON64(TZPP*.	614-18	HRS	63.5	68.5	0.40	82.8	10.2	63.4	3H
860786	SHASTA*YECORA ROJO	614-21	HRS	63.8	69.8	0.36	86.5	10.2	61.9	6M
860787	SHASTA*YECORA ROJO	614-22	HRS	64.3	71.5	0.37	87.8	10.0	60.0	6M
860788	SHASTA*CORCORAQUE F75	614-26	HRS	63.7	71.1	0.40	85.9	10.2	62.4	3H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860780	SHASTA*YECORA ROJO	614-1	HRS	63.5	63.2	2.5	910	891	3	Q-BCRGR
860781	SHASTA*YECORA ROJO	614-3	HRS	63.7	63.0	2.6	970	927	5	Q-BCRGR
860782	SHASTA*YECORA ROJO	614-4	HRS	65.3	64.1	2.4	965	891	5	Q-BCRGR
860784	YECORA ROJO (C1017414)	614-14	HRS	63.3	63.7	3.9	885	910	3	Q-FYELD&BCRGR
860785	((TZPP*WTE)*NP63)*(INIA'S' (SON64(TZPP*.	614-18	HRS	64.3	65.1	2.4	880	930	5	Q-FYELD&BCRGR
860786	SHASTA*YECORA ROJO	614-21	HRS	62.8	63.6	3.0	775	825	8	P-LVOL&BCRGR
860787	SHASTA*YECORA ROJO	614-22	HRS	60.7	61.7	2.8	785	847	6	Q-BCRGR&LVOL
860788	SHASTA*CORCORAQUE F75	614-26	HRS	63.3	64.1	2.2	830	880	5	P-MTIME Q-BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: This group had a fair level of protein, but was commonly poor in bread grain structure. Crumbs were heavy and coarse.

Q = Questionable; P = Poor





USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## HRW TEST SAMPLES

NURSCO 17

BENTON CO., OR .

R. KAROW

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
860794 HATTON		C1017772	HRW	64.1	73.4	0.34	91.2	11.3	65.0	4H
860795		OR8511	HRW	61.3	68.6	0.41	82.8	12.4	65.1	4H
860796		VFOR8511	HRW	63.7	68.3	0.40	83.0	10.7	64.5	4H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
860794 HATTON		C1017772	HRW	67.0	66.7	3.7	875	856	4	
860795		OR8511	HRW	68.2	66.8	3.1	935	848	4	P-FYELD
860796		VFOR8511	HRW	65.9	66.2	3.6	855	874	8	P-FYELD&BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 11% Protein.

COMMENTS: The two experimental lines OR8511 and VFOR8511 are significantly poor in flour yield than the control variety Hatton. OR8511 is about equal or better than Hatton in baking characteristics, but VFOR8511 is very poor in bread crumb structure (unsatisfactory).

P = Poor



NURSCO 18

PULLMAN, WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC RMKS	
												1/	4/
860797	ALONDRA/K79239 S.1	6/K8505001	SWS	61.0	69.9	0.35	88.1	9.8	57.1	6M	8.87	8.96	
860798	K79479/WALLADAY S.3	6/K8505016	SWS	64.3	70.8	0.30	92.0	8.6	56.0	4L	9.19	9.14	
860799	K79479/WALLADAY S.7	5/K8505020	SWS	64.1	70.9	0.31	91.9	9.0	56.4	4L	9.31	9.31	
860800	WA6614/C117347 S.1	6/K8505038	SWS	63.2	70.6	0.34	89.6	8.6	56.4	2M	9.05	9.01	
860801	WA6620/WA6402 S.2	K8505058	SWS	63.8	68.1	0.31	87.8	8.4	56.4	2M	9.19	9.12	Q-FYELD
860802	NAPB-75-6/K7905769 S.3	6/K8505104	SWS	64.8	68.7	0.32	88.2	8.9	55.7	3M	9.04	9.03	Q-FYELD
860803	EDWALL	P1477919	SWS	61.3	70.4	0.31	91.0	7.9	55.7	2L	8.96	8.84	
860804	PENEWAWA	WA6920	SWS	63.5	67.3	0.37	83.5	8.3	55.3	3L	9.02	8.95	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 9% Protein.4/ Observed Values Corrected to 9% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: All of these selections were equal to or better in overall quality than Edwall or Penewawa. Penewawa was below normal in flour yield.

Q = Questionable



NURSCO 19

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/
860805	WAVERLY	C1017911	SWS	63.7	69.9	0.32	83.8	9.5	52.6
860806	EDWALL	P1477919	SWS	61.9	72.3	0.33	88.1	8.0	54.1
860807	PENEHAWA	WA6920	SWS	64.1	69.7	0.35	82.4	8.4	53.5
860808	K79299-5	6/ WA7176	SWS	63.0	71.6	0.38	81.2	8.8	52.2
860809	K78504/K7429-33/K7806645 HF20055	6/ WA7183	SWS	64.5	70.9	0.34	83.6	8.5	53.8
860810	K74182/POTAM 70	6/ WA7187	SWS	64.6	68.9	0.29	82.3	9.2	57.9
860811	K74322/POTAM 70 K8005701	WA7188	SWS	63.7	72.5	0.32	85.6	8.2	56.6
860812	K78504/K7429-33//K7806645 K79299-20	WA7492	SWS	62.5	66.2	0.32	75.9	9.2	54.9
860813	COWBIRD S' /2*STERLING	6/ ID0312	SWS	64.9	69.2	0.30	81.7	8.6	54.0
860814	STERLING//COWBIRD S' /STERLING	ID0315	SWS	63.5	69.7	0.30	83.1	8.4	56.0
860815	STERLING//COWBIRD S' /STERLING	5/ ID0319	SWS	64.5	70.3	0.29	85.0	8.4	56.3
860816	K740315/POTAM 70 S.47	6/ WA7496	SWS	64.0	70.9	0.37	80.6	8.4	56.2
860817	K79224-2 K74129-19/ID0065	6/ K8305002	SWS	63.5	70.2	0.32	82.3	8.4	54.5
860818	K79224-6 K74129-19/ID0065	5/ K8305006	SWS	61.6	70.3	0.32	82.0	8.5	53.4
860819	K79224-10 K74129-19/ID0065	6/ K8305010	SWS	64.0	70.8	0.29	84.1	8.6	55.8
860820	K79224-11 K74129-19/ID0065	5/ K8305011	SWS	63.6	72.9	0.33	84.9	9.2	55.8
860821	K79228-1 K74129-23/WA6395	WA7497	SWS	64.6	73.2	0.33	86.9	8.6	56.0
860822	K78569-4 WS001/FIELDER	6/ K8305161	SWS	63.9	70.5	0.34	81.6	8.7	56.1
860823	K79497 PAVON S' /WA6396, VH068262//K78536/	K8405107	HWS	65.6	70.3	0.34	81.2	11.2	58.6
860824	K79497 PAVON S' /WA6396, VH068262//K78536/	K8405108	HWS	65.9	69.7	0.32	82.0	11.1	59.6
860825	K79527 TZPP-PL7C/(WA6307, BZ1/K690532//	K8405122	SWS	65.0	70.7	0.32	85.0	8.0	55.1

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 19

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC 4/	CAVOL	SCSOR	RMKS
860805	WAVERLY	C1017911	SWS	3M	8.80	8.85	1240	72.0	
860806	EDWALL	P1477919	SWS	3M	8.91	8.80	1240	72.0	
860807	PENEWAWA	WA6920	SWS	4L	9.02	8.96	1290	74.0	
860808	K79299-5	WA7176	SWS	2M	9.12	9.10	1250	72.0	
860809	K78504/K7429-33/K7806645 HF20055	WA7183	SWS	3M	9.09	9.03	1265	73.0	
860810	K74182/POTAM 70	WA7187	SWS	6M	8.95	8.97	1255	72.0	
860811	K74322/POTAM 70 K8005701	WA7188	SWS	4M	8.49	8.40	1240	72.0 P-CODI	
860812	K78504/K7429-33//K7806645 K79299-20	WA7492	SWS	3M	8.55	8.57	1235	72.0 P-FYELD	
860813	COWBIRD S'1/2*STERLING	ID0312	SWS	3M	8.96	8.92	1285	73.0	
860814	STERLING//COWBIRD S'1/STERLING	ID0315	SWS	4M	8.39	8.32	1155	67.0 P-CODI	
860815	STERLING//COWBIRD S'1/STERLING	ID0319	SWS	4L	9.04	8.97	1284	75.0	
860816	K740315/POTAM 70 S.47	WA7496	SWS	3L	8.90	8.83	1265	73.0	
860817	K79224-2 K74129-19/ID0065	K8305002	SWS	4L	9.06	9.00	1275	73.0	
860818	K79224-6 K74129-19/ID0065	K8305006	SWS	2L	9.07	9.02	1285	75.0	
860819	K79224-10 K74129-19/ID0065	K8305010	SWS	3M	8.92	8.88	1255	72.0	
860820	K79224-11 K74129-19/ID0065	K8305011	SWS	4M	9.09	9.11	1260	72.0	
860821	K79228-1 K74129-23/WA6395	WA7497	SWS	6M	8.80	8.76	1260	72.0 Q-CODI	
860822	K78569-4 WS001/FIELDER	K8305161	SWS	4M	9.05	9.02	1235	72.0	
860823	K79497 PAVON S'1/WA6396, VH068262//K78536/	K8405107	HWS	3H	7.86	8.04	1110	64.0 P-CODI "Hard"	
860824	K79497 PAVON S'1/WA6396, VH068262//K78536/	K8405108	HWS	4H	7.61	7.78	1055	55.0 P-CODI "Hard"	
860825	K79527 TZPP-PL7C/(WA6307, BZ1/K690532//	K8405122	SWS	4L	8.74	8.63	1210	69.0 P-CODI	

Several of these selections (footnoted) are equal to or better than the check varieties in overall milling and baking quality. See "Remarks" for deficiencies of others.

P = Poor; Q = Questionable



NURSCO 20

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860826	RSK/CNO.S//GLL		SRW	64.0	64.6	0.27	87.3	11.0	60.0	8M
860827	C072-4660/TI-RESEL		<u>6/</u> HRW	63.6	70.9	0.33	89.4	10.9	65.3	5H
860828	RPB1463/NAC76		HRW	62.0	71.4	0.36	88.1	10.9	65.8	4H
860829	S148/PCH.S		SRW	62.4	67.3	0.27	90.4	10.6	59.9	4L
860830	LN1/BNAM		<u>6/</u> HRW	63.2	70.7	0.36	87.4	12.3	65.9	6H
860831	RPT/3/RAP/BPNA//BPT		<u>6/</u> HRW	64.8	69.3	0.34	87.2	12.2	65.6	7H
860832	CLLF/BEZ//SU92...		HRW	61.2	70.1	0.36	86.5	10.1	63.9	8M
860833	CAN 78W025001		HRW	62.4	70.0	0.37	85.9	11.1	60.5	8M
860834	KAL/PMF/3/7C/CNO//CAL		HRW	60.0	68.9	0.36	85.7	11.4	64.3	8M
860835	HUQ/ALD.S		HRW	62.8	69.5	0.34	87.4	11.0	64.5	8M
860836	NEWTON		HRW	63.6	69.8	0.30	89.8	12.1	60.7	4H
860837	CHEYENNE		HRW	62.8	71.5	0.34	89.4	11.3	64.5	6H
860838	CENTURA		HRW	64.0	71.6	0.31	91.1	10.2	64.0	8M
860839	COLT		HRW	63.6	72.7	0.33	91.2	11.0	62.0	4H
860840	SIOUXLAND		HRW	62.8	71.5	0.33	89.9	11.1	60.9	6M
860841	YAMHILL		SWW	58.8	68.3	0.35	86.4	10.6	57.6	4L
860842	STEPHENS		SWW	58.4	65.7	0.35	83.2	11.3	58.1	3M
860843	NORSTAR		HRW	61.6	70.8	0.33	89.2	11.0	59.7	6H
860844	ORCR8551		<u>6/</u> HRW	61.6	68.8	0.43	81.6	11.1	62.7	3H
860845	BPREE.S/BNDU		HRW	62.8	66.0	0.42	79.1	10.5	65.5	4H
860846	VITORIA INTA		<u>6/</u> HRW	62.4	68.8	0.39	83.8	15.1	63.5	4H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 20

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860826	RSK/CNO. S//GLL		SRW	61.7	61.7	4.0	875	875		2 P-FYELD "Soft"
860827	C072-4660/T1-RESEL		HRW	66.9	67.0	4.1	895	901		3 Q-BCRGR
860828	RPB1463/NAC76		HRW	67.4	67.5	3.5	860	866		4 Q-LVOL&BCRGR
860829	S148/PCH.S		SRW	59.7	60.1	2.8	830	854		3 Q-LVOL&BCRGR "Soft"
860830	LNI/BNAM		HRW	68.9	67.6	5.6	875	794		2 Q-LVOL
860831	RPT/3/RAP/BPNA//BPT		HRW	68.5	67.3	7.4	945	871		2
860832	CLLF/BEZ//SU92...		HRW	64.7	65.6	5.5	750	806		8 P-LVOL&BCRGR
860833	CAN 78W025001		HRW	62.3	62.2	4.1	915	909		7 P-BCRGR
860834	KAL/PMF/3/7C/CNO//CAL		HRW	66.4	66.0	5.2	925	900		4 Q-P-BCRGR
860835	HUQ/ALD.S		HRW	66.2	66.2	5.9	820	820		4 P-BCRGR&LVOL
860836	NEWTON		HRW	63.5	62.4	3.5	980	912		3
860837	CHEYENNE		HRW	66.5	66.2	6.1	905	886		2
860838	CENTURA		HRW	64.9	65.7	5.5	930	980		3
860839	COLT		HRW	63.7	63.7	4.5	895	895		2
860840	STOUXLAND		HRW	62.7	62.6	3.7	850	844		2
860841	YAMHILL		SWW							
860842	STEPHENS		SWW							
860843	NORSTAR		HRW	61.4	61.4	6.3	1050	1050		2
860844	ORCR8551		HRW	64.5	64.4	3.3	955	949		2 Q-FYELD
860845	BPREE.S/BNBU		HRW	66.7	67.2	4.0	870	901		5 P-FYELD&BCRGR
860846	VITORIA INTA		HRW	69.3	65.2	3.7	1050	796		2 High Protein

COMMENTS: Despite good protein and dough mixing properties, several of these selections were questionable-poor in loaf volume and bread crumb structure. See "Remarks".

P = Poor; Q = Questionable





NISSHIN MILLS PNW VARIETY/LOCATION STUDY  
1986 CROP

Cooperative between

Nisshin Flour Milling Co., Ltd.  
Tokyo, Japan

...

USDA, ARS Western Wheat Quality Lab.  
Pullman, WA

...

WA, OR, & ID Wheat Commissions

...

U.S. Wheat Associates, Inc.

December 1986



NURSCO 21

ID, OR, WA

LABNUM	VARIETY	IDNO	CLASS	TWT	NIR HARDNESS	WHEAT DSI	FYELD	MSCOR	FMIST	FASH		FPROT	FLOUR DSI	MABSC	MTYPE
										1/	1/				
860852	SOUTH IDAHO, BURLEY	HILL	SWW	61.6	25.1	.062	75.0	85.1	12.5	0.45	9.2	.048		53.6	2M
860853	SOUTH IDAHO, BURLEY, BLACKFOOT	DAWS	SWW	62.2	32.4	.071	70.2	78.3	12.6	0.42	9.1	.061		53.8	3L
860854	CAMAS PRARIE, GRANGEVILLE, GARFIELD	STEPHENS	SWW	59.1	20.4	.069	72.5	84.1	12.5	0.40	8.9	.047		52.9	2M
860855	CAMAS PRARIE, GRANGEVILLE, GARFIELD	HILL	SWW	62.9	24.6	.063	74.0	88.5	12.5	0.36	7.9	.045		54.9	3L
860856	PALOUSE, JOHNSON, MOSCOW, STEPTOE	STEPHENS	SWW	61.0	19.3	.064	74.1	88.7	12.0	0.38	8.7	.048		52.5	2L
860857	PALOUSE, JOHNSON, MOSCOW, STEPTOE	HILL	SWW	63.0	23.9	.065	74.4	87.7	12.6	0.38	7.9	.052		55.0	3L
860858	PALOUSE, JOHNSON, STEPTOE	DAWS	SWW	62.7	19.0	.073	72.3	84.9	12.5	0.37	8.1	.058		54.2	4L
860859	BIG BEND, ALMIRA, HARRINGTON, RITZVILLE	HILL	SWW	62.1	22.5	.050	72.2	82.1	12.3	0.39	9.2	.047		53.8	3M
860860	BIG BEND, ALMIRA, HARRINGTON	DAWS	SWW	63.7	20.2	.052	71.4	82.4	12.3	0.38	7.7	.049		52.3	4L
860861	BIG BEND, ALMIRA, HARRINGTON, RITZVILLE	LEWJAIN	SWW	62.8	22.4	.059	71.0	81.4	12.2	0.38	8.7	.050		53.7	4M
860862	BIG BEND, WATERVILLE	SPRAGUE	SWW	61.7	20.8	.049	70.4	81.9	12.0	0.38	8.6	.047		52.6	2M
860863	BIG BEND, ALMIRA, RITZVILLE	CREW	CLUB	61.1	20.7	.055	72.9	84.0	12.2	0.40	8.1	.051		51.3	2M
860864	BIG BEND, ALMIRA	TYEE	CLUB	61.4	21.5	.061	74.3	86.3	12.2	0.42	8.9	.053		49.0	2L
860865	BIG BEND, RITZVILLE	MORO	CLUB	59.6	19.3	.069	73.2	82.0	12.2	0.45	9.6	.053		50.8	2M
860866	WALLA WALLA/PENDLETON	STEPHENS	SWW	61.1	16.3	.073	74.4	86.5	11.8	0.39	7.1	.055		52.3	3L
860867	WALLA WALLA/PENDLETON	HILL	SWW	59.4	29.8	.059	73.0	80.7	12.0	0.48	9.9	.054		52.3	2M
860868	WALLA WALLA/PENDLETON	DAWS	SWW	61.3	20.3	.071	70.8	83.0	12.4	0.37	7.5	.067		51.6	8L
860869	COLUMBIA RIVER, SHERMAN CO.	STEPHENS	SWW	61.4	35.9	.079	67.1	73.4	12.3	0.43	7.5	.064		52.0	2L
860870	COLUMBIA RIVER, SHERMAN CO.	HILL	SWW	62.8	27.7	.073	71.6	82.7	12.0	0.38	7.2	.062		53.0	3L
860871	COLUMBIA RIVER, SHERMAN CO.	CREW	CLUB	58.4	23.0	.063	73.9	81.9	11.7	0.46	7.3	.055		51.0	2L
860872	WILLAMETTE, WASH., BENTON, MARION CO.	STEPHENS	SWW	62.1	27.4	.088	71.8	82.9	12.4	0.41	8.3	.054		53.8	4L
860873	WILLAMETTE, WASH., BENTON, MARION CO.	HILL	SWW	61.8	27.8	.070	73.5	84.0	12.2	0.44	8.5	.056		53.4	4L
860874	WILLAMETTE, WASH., BENTON, MARION CO.	YAMHILL	SWW	59.7	21.2	.121	72.5	81.3	12.1	0.45	9.2	.065		54.1	4L
860875	BLUE MTN., UNION CO.	STEPHENS	SWW	60.5	18.7	.105	72.9	82.1	11.9	0.45	7.9	.056		53.7	2L
860876	BLUE MTN., UNION CO.	HILL	SWW	63.3	28.0	.060	73.9	84.1	11.8	0.44	8.1	.052		52.8	2L
860877	BLUE MTN., UNION CO.	YAMHILL	SWW	61.5	28.6	.080	72.8	81.7	12.3	0.45	8.4	.059		54.1	3L
860878	3 YEAR REFERENCE CONTROL	STEPHENS	SWW	61.5	22.4	.133	73.2	82.5	12.3	0.44	6.5	.060		53.0	3L

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



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ID, OR, WA

LABNUM	VARIETY	IDNO	CLASS	VISC	VISCC	AWRC	CODI	CODIC	CAVOL	EXFAC	CCRGR	TEXTC	SCSOR	RMKS
								4/						
860852	SOUTH IDAHO, BURLEY	HILL	SWW	63	46	56.0	8.81	8.94	1203	27.0	18.0	23.0	68.0	
860853	SOUTH IDAHO, BURLEY, BLACKFOOT	DAWS	SWW	105	77	66.0	8.50	8.62	1270	29.0	20.0	24.0	73.0	
860854	CAMAS PRARIE, GRANGEVILLE, GARFIELD	STEPHENS	SWW	63	49	56.0	8.71	9.01	1350	32.0	22.0	24.0	78.0	
860855	CAMAS PRARIE, GRANGEVILLE, GARFIELD	HILL	SWW	78	80	56.0	8.77	8.76	1280	30.0	22.0	24.0	76.0	
860856	PALOUSE, JOHNSON, MOSCOW, STEPTOE	STEPHENS	SWW	62	51	58.0	8.99	9.06	1310	31.0	18.0	24.0	73.0	
860857	PALOUSE, JOHNSON, MOSCOW, STEPTOE	HILL	SWW	67	69	58.0	8.96	8.95	1333	32.0	23.0	24.0	79.0	
860858	PALOUSE, JOHNSON, STEPTOE	DAWS	SWW	100	97	60.0	8.64	8.65	1245	28.0	22.0	22.0	72.0	
860859	BIG BEND, ALMIRA, HARRINGTON, RITZVILLE	HILL	SWW	103	74	56.0	9.06	9.19	1325	31.0	22.0	23.0	76.0	
860860	BIG BEND, ALMIRA, HARRINGTON	DAWS	SWW	93	104	58.0	8.66	8.63	1298	30.0	22.0	24.0	76.0	
860861	BIG BEND, ALMIRA, HARRINGTON, RITZVILLE	LEWJAIN	SWW	104	85	58.0	9.19	9.26	1333	32.0	23.0	23.0	78.0	
860862	BIG BEND, WATERVILLE	SPRAGUE	SWW	121	101	58.0	8.80	8.87	1293	30.0	22.0	24.0	76.0	
860863	BIG BEND, ALMIRA, RITZVILLE	CREW	CLUB	78	76	56.0	9.10	9.11	1378	33.0	24.0	24.0	81.0	
860864	BIG BEND, ALMIRA	TYEE	CLUB	75	58	56.0	9.27	9.34	1328	31.0	21.0	24.0	76.0	
860865	BIG BEND, RITZVILLE	MORO	CLUB	120	79	56.0	9.10	9.21	1328	31.0	23.0	23.0	77.0	
860866	WALLA WALLA/PENDLETON	STEPHENS	SWW	59	84	56.0	9.12	9.03	1302	30.0	21.0	23.0	74.0	
860867	WALLA WALLA/PENDLETON	HILL	SWW	90	56	54.0	8.90	9.11	1293	30.0	21.0	24.0	75.0	
860868	WALLA WALLA/PENDLETON	DAWS	SWW	105	125	56.0	8.86	8.81	1380	34.0	24.0	23.0	81.0	
860869	COLUMBIA RIVER, SHERMAN CO.	STEPHENS	SWW	32	38	64.0	8.82	8.77	1203	27.0	18.0	24.0	69.0	
860870	COLUMBIA RIVER, SHERMAN CO.	HILL	SWW	63	85	56.0	8.99	8.90	1365	33.0	22.0	24.0	79.0	
860871	COLUMBIA RIVER, SHERMAN CO.	CREW	CLUB	45	58	56.0	9.04	8.99	1348	32.0	22.0	23.0	77.0	
860872	WILLAMETTE, WASH., BENTON, MARION CO.	STEPHENS	SWW	91	83	56.0	9.05	9.08	1325	31.0	23.0	24.0	78.0	
860873	WILLAMETTE, WASH., BENTON, MARION CO.	HILL	SWW	87	75	56.0	9.07	9.13	1305	31.0	23.0	24.0	78.0	
860874	WILLAMETTE, WASH., BENTON, MARION CO.	YAMHILL	SWW	117	84	58.0	8.87	9.01	1275	29.0	22.0	23.0	74.0	
860875	BLUE MTN., UNION CO.	STEPHENS	SWW	46	48	58.0	9.14	9.13	1268	29.0	21.0	24.0	74.0	
860876	BLUE MTN., UNION CO.	HILL	SWW	54	53	58.0	8.96	8.97	1258	29.0	21.0	24.0	74.0	
860877	BLUE MTN., UNION CO.	YAMHILL	SWW	91	81	58.0	8.95	8.99	1278	30.0	21.0	23.0	74.0	
860878	3 YEAR REFERENCE CONTROL	STEPHENS	SWW	38	74	58.0	9.25	9.09	1398	34.0	24.0	25.0	83.0	

COMMENTS: These samples were taken from commercial channels, but certified to be variety pure. The study is a cooperative project with the Nisshin Flour Milling Co., Ltd. and U.S. Wheat Associates, Inc. Objectives were to 1) determine the variability of end-use processing properties among PNW soft white wheat varieties and locations and 2) provide a set of wheats to serve as a methodology check between ourselves and the Japanese trade. Sub-samples were sent to Japan and the results will be compared.





I. FLOUR YIELD (%)\*

Region	Stephens	Daws	Hill	Yamhill	Crew	S.W.W.*		
						Loc(X)	Sd.	C.V.
1		70.2	75.0			72.6	3.4	4.67
2	72.5		74.0			73.3	1.1	1.44
3	74.1	73.2	74.4			73.6	1.1	1.54
4		71.4	72.2		72.9	72.2	1.4	1.89
5	74.4	70.8	73.0			72.7	1.8	2.49
6	67.1		71.6		73.9	70.9	3.5	4.88
7	71.8		73.5			72.6	0.9	1.17
8	72.9		73.9			73.2	0.6	.83
$\bar{X} = 72.1$						72.7		
Sd = 2.65						72.7		
CV = 3.67						72.7		

$\bar{X} (n = 27) = 72.5$   
Sd (n = 27) = 1.69  
CV (n = 27) = 2.33

$\bar{X} = 71.3$  a,b

#3 Palouse

Stephens	74.1
Hill	74.4
Daws	72.3

$\bar{X} = 73.6$  a

#2 Camas Prairie

Stephens	72.5
Hill	74.0

$\bar{X} = 73.3$  a

#5 WW/Pendleton

Stephens	74.4
Hill	73.0
Daws	70.8

$\bar{X} = 72.7$  a

#8 Blue Mt.

Stephens	72.9
Hill	73.9
Yamhill	72.8

$\bar{X} = 73.2$  a

#6 Columbia R.

Stephens	67.1
Hill	71.6
Crew	73.9

$\bar{X} = 69.4$  b

#7 Willamette

Stephens	71.8
Hill	73.5
Yamhill	72.5

$\bar{X} = 72.6$  a,b

#1 South Idaho

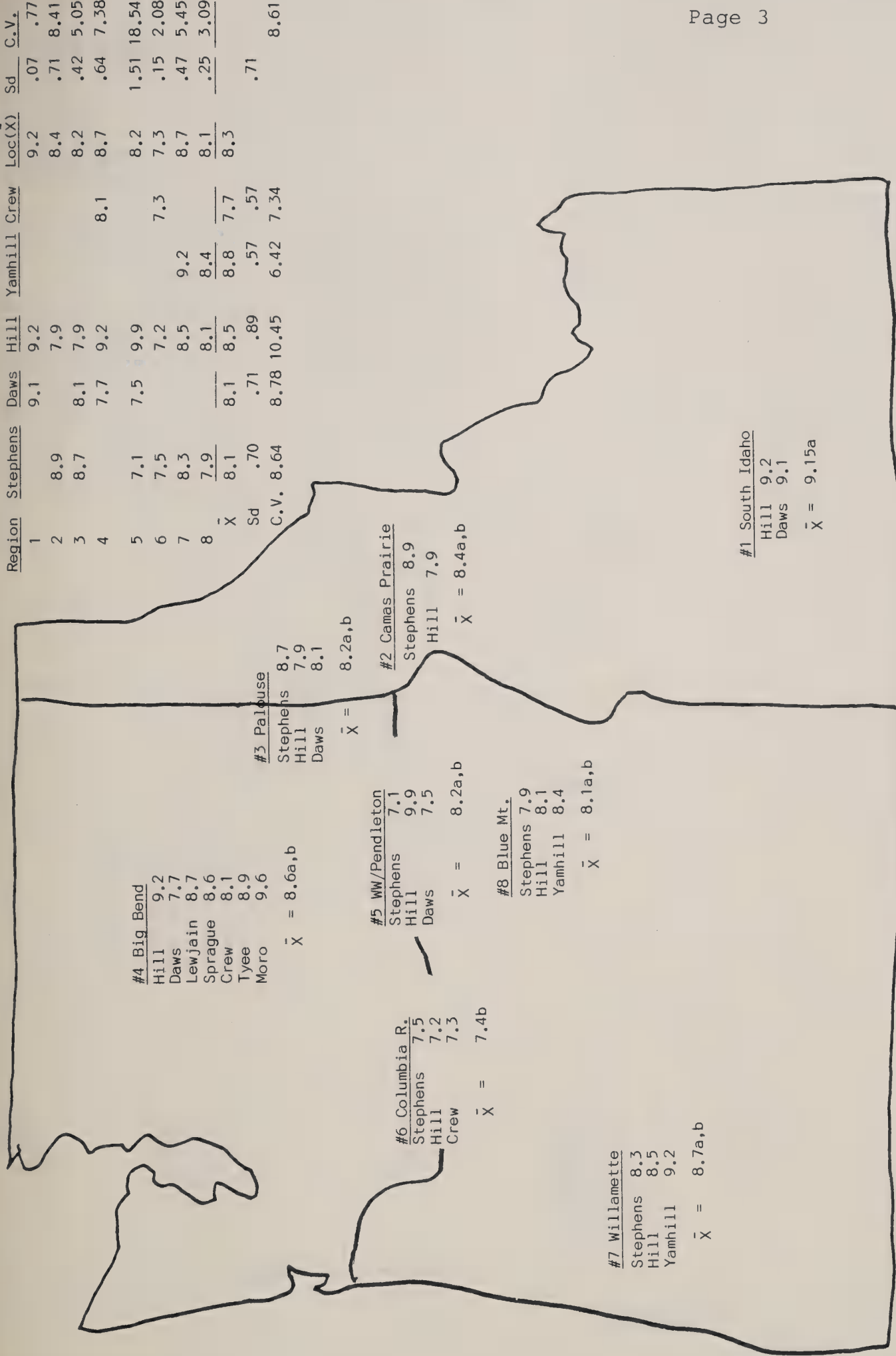
Hill	75.0
Daws	70.2

$\bar{X} = 72.6$  a,b

\*Duncans Multiple Range Test for significant variation among means of varieties X locations (using only the four soft white winter varieties Hill, Stephens, Daws, and Yamhill). (n = 22). Means with like letters (a,b, etc.) are not significantly different.



# II. FLOUR PROTEIN\*



#4 Big Bend  
 Hill 9.2  
 Daws 7.7  
 Lewjain 8.7  
 Sprague 8.6  
 Crew 8.1  
 Tyee 8.9  
 Moro 9.6  
 $\bar{X} = 8.6a, b$

#3 Palouse  
 Stephens 8.7  
 Hill 7.9  
 Daws 8.1  
 $\bar{X} = 8.2a, b$

#5 WW/Pendleton  
 Stephens 7.1  
 Hill 9.9  
 Daws 7.5  
 $\bar{X} = 8.2a, b$

#6 Columbia R.  
 Stephens 7.5  
 Hill 7.2  
 Crew 7.3  
 $\bar{X} = 7.4b$

#8 Blue Mt.  
 Stephens 7.9  
 Hill 8.1  
 Yamhill 8.4  
 $\bar{X} = 8.1a, b$

#7 Willamette  
 Stephens 8.3  
 Hill 8.5  
 Yamhill 9.2  
 $\bar{X} = 8.7a, b$

#2 Camas Prairie  
 Stephens 8.9  
 Hill 7.9  
 $\bar{X} = 8.4a, b$

#1 South Idaho  
 Hill 9.2  
 Daws 9.1  
 $\bar{X} = 9.15a$

Region	Stephens	Daws	Hill	Yamhill	Crew	Loc( $\bar{X}$ )	Sd	C.V.
1		9.1	9.2			9.2	.07	.77
2	8.9		7.9			8.4	.71	8.41
3	8.7	8.1	7.9			8.2	.42	5.05
4		7.7	9.2		8.1	8.7	.64	7.38
5	7.1	7.5	9.9			8.2	1.51	18.54
6	7.5		7.2		7.3	7.3	.15	2.08
7	8.3		8.5	9.2		8.7	.47	5.45
8	7.9		8.1	8.4		8.1	.25	3.09
$\bar{X}$	8.1	8.1	8.5	8.8	7.7	8.3		
Sd	.70	.71	.89	.57	.57		.71	8.61
C.V.	8.64	8.78	10.45	6.42	7.34			

\*Duncans Multiple Range Test for significant variation among means of varieties X Locations (using only the four soft white winter varieties Hill, Stephens, Daws, and Yamhill). (n = 22). Means with like letters (a,b, etc.) are not significantly different.



# III. COOKIE DIAMETER (cm) \*

Region	SWW*			
	Stephens	Daws	Hill	Yamhill
1	8.50	8.81		
2	8.91	8.77		
3	8.99	8.64	8.96	9.10
4		8.66	9.06	
5	9.12	8.86	8.90	
6	8.82		8.99	9.04
7	9.05		9.07	8.87
8	9.14		8.96	8.95
$\bar{X}$	9.01	8.67	8.94	8.91
Sd	.12	.15	.11	.06
C.V.	1.37	1.71	1.21	.63
				.17
				1.92

$\bar{X}$  (n=27) = 8.95  
Sd (n=27) = .19  
C.V. = 2.12

#2 Camas Prairie  
Stephens 8.91  
Hill 8.77  
 $\bar{X}$  = 8.84a

#3 Palouse  
Stephens 8.99  
Hill 8.96  
Daws 8.64  
 $\bar{X}$  = 8.86a

#5 WW/Pendleton  
Stephens 9.12  
Hill 8.90  
Daws 8.86  
 $\bar{X}$  = 8.96a

#8 Blue Mt.  
Stephens 9.14  
Hill 8.96  
Yamhill 8.95  
 $\bar{X}$  = 9.02a

#6 Columbia R.  
Stephens 8.82  
Hill 8.99  
Crew 9.04  
 $\bar{X}$  = 8.91a

#7 Willamette  
Stephens 9.05  
Hill 9.07  
Yamhill 8.87  
 $\bar{X}$  = 9.00a

#1 South Idaho  
Hill 8.81  
Daws 8.50  
 $\bar{X}$  = 8.66a

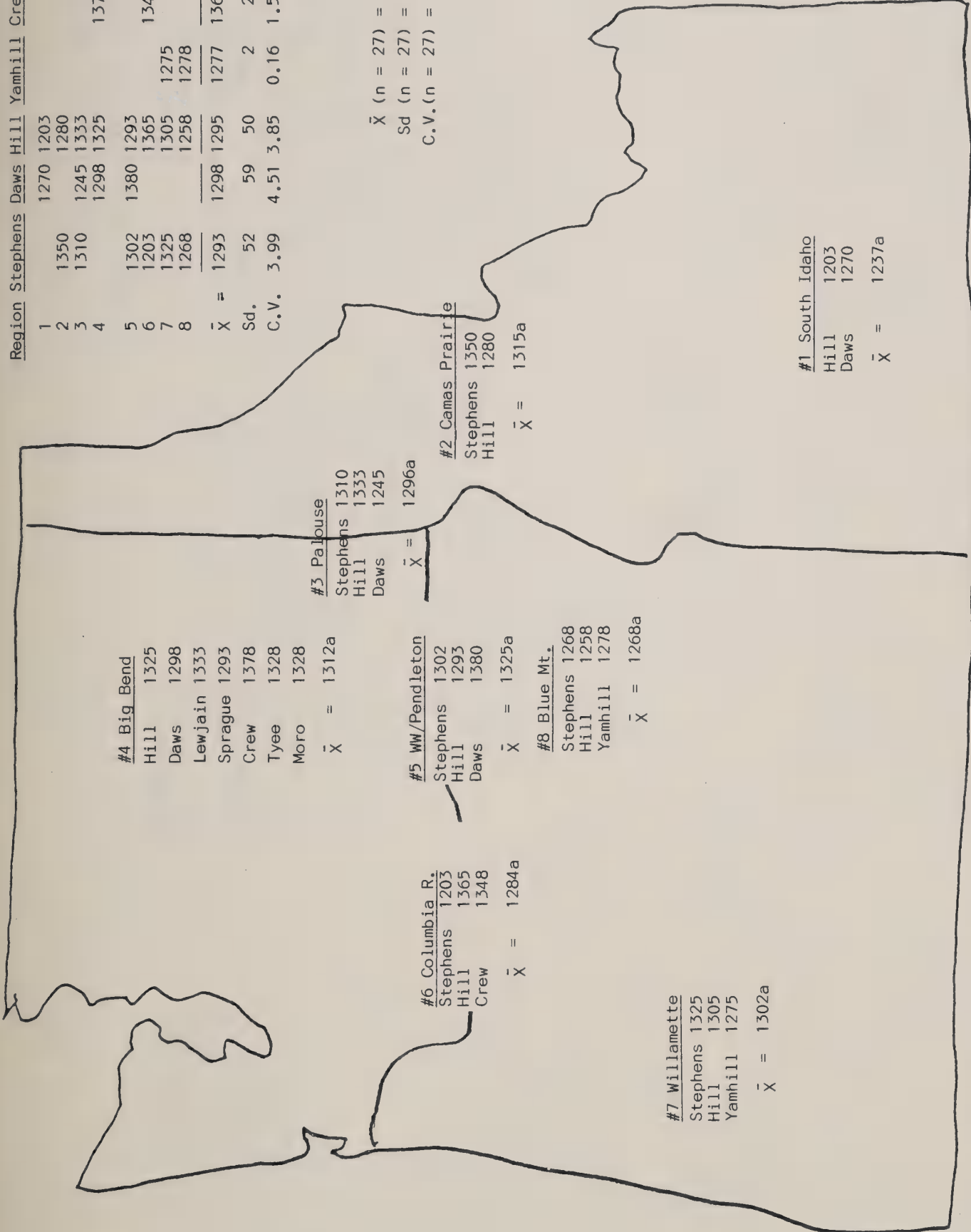
\*Duncans Multiple Range Test for significant variation among means of varieties X locations (using only the four soft white winter varieties Hill, Stephens, Daws, and Yamhill). (n = 22). Means with like letters (a, b, etc.) are not significantly different.





Region	Stephens	Daws	Hill	Yamhill	Crew	SdW*	
						Loc(X)	Sd. C.V.
1		1270	1203			1237	47 3.83
2	1350		1280			1315	49 3.76
3	1310	1245	1333			1296	46 3.52
4		1298	1325		1378	1326	28 2.09
5	1302	1380	1293			1325	48 3.61
6	1203		1365		1348	1305	89 6.82
7	1325		1305	1275		1302	25 1.93
8	1268		1258	1278		1268	10 .78
$\bar{X}$	= 1293	1298	1295	1277	1363	1295	
Sd.	52	59	50	2	21		46
C.V.	3.99	4.51	3.85	0.16	1.55		3.53

$\bar{X}$  (n = 27) = 1306  
Sd (n = 27) = 48.9  
C.V. (n = 27) = 3.72



#4 Big Bend  
Hill 1325  
Daws 1298  
Lewjain 1333  
Sprague 1293  
Crew 1378  
Tyee 1328  
Moro 1328  
 $\bar{X}$  = 1312a

#3 Palouse  
Stephens 1310  
Hill 1333  
Daws 1245  
 $\bar{X}$  = 1296a

#5 WW/Pendleton  
Stephens 1302  
Hill 1293  
Daws 1380  
 $\bar{X}$  = 1325a

#8 Blue Mt.  
Stephens 1268  
Hill 1258  
Yamhill 1278  
 $\bar{X}$  = 1268a

#6 Columbia R.  
Stephens 1203  
Hill 1365  
Crew 1348  
 $\bar{X}$  = 1284a

#7 Willamette  
Stephens 1325  
Hill 1305  
Yamhill 1275  
 $\bar{X}$  = 1302a

#2 Camas Prairie  
Stephens 1350  
Hill 1280  
 $\bar{X}$  = 1315a

#1 South Idaho  
Hill 1203  
Daws 1270  
 $\bar{X}$  = 1237a

\*Duncans Multiple Range Test for significant variation among means of varieties X locations (using only the four soft white winter varieties Hill, Stephens, Daws, and Yamhill). (n = 22). Means with like letters (a, b, etc.) are not significantly different.



## V. SPONGE CAKE SCORE\*

Region	Stephens	Daws	Hill	Yamhill	Crew	SWW*	
						Loc(X)	Sd. C.V.
1		73.0	68.0			70.5	3.5 5.01
2	78.0		76.0			77.0	1.4 1.83
3	73.0	72.0	79.0			74.7	3.8 5.07
4		76.0	76.0		81.0	77.1	1.9 2.41
5	74.0	81.0	75.0			76.7	3.8 4.93
6	69.0		79.0		77.0	75.0	5.3 7.05
7	78.0		78.0	74.0		76.7	2.3 3.01
8	74.0		74.0	74.0		74.0	0.0 0.0
$\bar{X}$	74.3	75.5	75.6	74.0	79.0	75.2	
Sd.	3.4	4.0	3.6	0.0	2.8		3.1
C.V.	4.55	5.35	4.73	0.0	3.58		4.13

$$\bar{X} (n = 27) = 75.9$$

$$Sd (n = 27) = 3.4$$

## #4 Big Bend

Hill	76.0
Daws	76.0
Lewjain	78.0
Sprague	76.0
Crew	81.0
Tyee	76.0
Moro	77.0

$$\bar{X} = 76.5a$$

## #3 Palouse

Stephens	73.0
Hill	79.0
Daws	72.0

$$\bar{X} = 74.7a$$

## #2 Camas Prairie

Stephens	78.0
Hill	76.0

$$\bar{X} = 77.0a$$

## #5 WW/Pendleton

Stephens	74.0
Hill	75.0
Daws	81.0

$$\bar{X} = 76.7a$$

## #6 Columbia R.

Stephens	69.0
Hill	79.0
Crew	77.0

$$\bar{X} = 74.0a$$

## #8 Blue Mt.

Stephens	74.0
Hill	74.0
Yamhill	74.0

$$\bar{X} = 74.0a$$

## #7 Willamette

Stephens	78.0
Hill	78.0
Yamhill	74.0

$$\bar{X} = 76.7a$$

## #1 South Idaho

Hill	68.0
Daws	73.0

$$\bar{X} = 70.5a$$

\*Duncans Multiple Range Test for significant variation among means of varieties X locations (using only the four soft white winter varieties Hill, Stephens, Daws, and Yamhill). (n = 22). Means with like letters (a,b, etc.) are not significantly different.



PULLMAN, WA

C.F. KONZAK

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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860879	K79222/ID167 S.9	K850048	HRS	63.3	71.0	0.30	90.9	9.3	59.2	2M
860880	K79421/WAMPUM S.3	K850101	HRS	63.2	70.3	0.26	92.0	10.0	64.9	3H
860881	K79424/WA6307 S.2	K850119	HRS	63.7	68.4	0.30	88.2	9.7	61.5	8M
860882	K79461/WA6307 S.5	K850128	HRS	63.5	71.4	0.32	90.3	9.1	60.4	4M
860883	K79524/SNY1273 S.4	K850134	HRS	63.8	70.1	0.30	89.7	9.2	60.0	4M
860884	K79527/K79460 S.10	K850146	HRS	63.0	64.4	0.34	82.0	7.8	60.7	6L
860885	K79527/K79460 S.11	K850147	HRS	63.9	66.5	0.34	83.9	8.8	60.6	4M
860886	K79527/WA6511 S.4	K850165	HRS	62.7	70.1	0.34	88.0	8.1	60.9	6M
860887	WAMPUM	C1017691	HRS	63.7	71.0	0.34	89.0	8.9	61.9	6M
860888	K73579/BORAH	WA7075	HRS	62.5	71.6	0.32	90.3	10.0	61.4	3H
860889	WPB 906R	WPB0906	HRS	62.9	69.1	0.31	88.6	11.1	61.7	5H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860879	K79222/ID167 S.9	K850048	HRS	61.2	60.9	1.4	805	786	7	P-MTIME&BCRGR
860880	K79421/WAMPUM S.3	K850101	HRS	67.6	66.6	3.3	910	848	8	P-BCRGR
860881	K79424/WA6307 S.2	K850119	HRS	63.9	63.2	4.7	825	782	7	P-BCRGR
860882	K79461/WA6307 S.5	K850128	HRS	62.2	62.1	3.4	860	854	7	P-BCRGR
860883	K79524/SNY1273 S.4	K850134	HRS	61.9	61.7	3.2	755	743	8	P-BCRGR
860884	K79527/K79460 S.10	K850146	HRS	61.2	62.4	4.7	665	739	9	P-BCRGR, LVOL&FYELD
860885	K79527/K79460 S.11	K850147	HRS	62.1	62.3	3.7	700	712	8	P-LVOL, BCRGR&FYELD
860886	K79527/WA6511 S.4	K850165	HRS	61.7	62.6	3.7	760	816	8	P-LVOL&BCRGR
860887	WAMPUM	C1017691	HRS	62.0	62.1	4.0	855	861	3	
860888	K73579/BORAH	WA7075	HRS	64.1	63.1	3.7	855	793	2	
860889	WPB 906R	WPB0906	HRS	65.5	63.4	4.4	930	800	2	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: These selections are poor in bread crumb structure and/or loaf volume as compared to Wampum, WA7075, and 906R. Selections K850146 and 147 are very low in flour yield and K850119 is also low in flour yield.

P = Poor





NURSCO 23

PULLMAN, WA

C. F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860890	K79527/WA6511 S.7	K850168	HRS	63.2	67.1	0.31	86.4	8.0	59.2	4M
860891	" S.8	K850169	HRS	61.8	69.0	0.34	86.7	8.4	59.7	4M
860892	" S.9	K850170	HRS	62.9	67.9	0.34	85.5	7.9	62.3	8M
860893	K79575/K79567 S.3	K850181	HRS	63.2	70.1	0.25	92.5	9.9	61.8	4H
860894	" S.6	K850184	HRS	63.4	67.9	0.26	89.9	9.9	62.3	4H
860895	SNYT273-488/AMIGO S.4	K850197	HRS	63.1	69.9	0.31	89.1	8.8	60.0	6L
860896	SNYT273-496/MV 5 S.1	K850212	HRS	62.9	69.9	0.32	88.8	9.5	60.5	8M
860897	SNYT273-496/WAMPUM S.1	K850213	HRS	62.6	69.0	0.34	86.7	8.3	59.4	2M
860898	" S.3	K850215	HRS	62.8	71.0	0.34	88.6	8.5	59.7	2M
860899	" S.4	K850216	HRS	62.6	71.8	0.34	89.5	8.3	58.9	2M
860900	" S.5	K850217	HRS	62.7	69.8	0.34	87.4	8.6	58.7	2M
860901	UT881292/ID167 S.2	5/ K850220	HRS	62.3	72.3	0.31	91.6	9.1	61.5	6H
860902	FLICKER S'/K80410 S.9	K850236	HRS	62.5	68.2	0.33	86.2	8.6	59.3	6M
860903	" S.11	K850238	HRS	62.8	69.2	0.28	90.1	9.4	59.9	4M
860904	K750124/K80410 S.1	K850266	HRS	63.3	71.0	0.29	91.4	9.0	59.0	4M
860905	" S.5	K850270	HRS	63.9	71.3	0.31	90.9	9.2	59.6	6M
860906	K80420/K80433 S.1	K850277	HRS	62.0	69.3	0.32	87.8	7.9	60.7	8M
860907	WAMPUM	C1017691	HRS	63.4	71.8	0.33	90.3	9.4	59.2	6M
860908	K73579/BORAH	WA7075	HRS	62.3	70.8	0.30	90.4	10.6	61.0	3H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 23

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860890	K79527/WA6511 S.7	K850168	HRS	59.9	60.9	2.8	710	772	8	Q-FYELD P-LVOL&BCRGR
860891	" S.8	K850169	HRS	60.8	61.4	3.1	760	797	8	P-LVOL&BCRGR
860892	" S.9	K850170	HRS	62.9	64.0	4.4	755	823	8	P-BCRGR Q-FYELD
860893	K79575/K79567 S.3	K850181	HRS	64.4	63.5	2.9	835	779	4	Q-LVOL&BCRGR
860894	" S.6	K850184	HRS	64.9	64.0	3.0	840	784	3	Q-FYELD&LVOL
860895	SNYT273-488/AMIGO S.4	K850197	HRS	61.5	61.7	4.2	610	622	9	VP-LVOL&BCRGR
860896	SNYT273-496/MV 5 S.1	K850212	HRS	62.7	62.2	3.9	735	704	8	P-LVOL&BCRGR
860897	SNYT273-496/WAMPUM S.1	K850213	HRS	60.4	61.1	1.9	710	753	9	P-MTIME, LVOL&BCRGR
860898	" S.3	K850215	HRS	60.9	61.4	2.0	700	731	8	P-MTIME, LVOL&BCRGR
860899	" S.4	K850216	HRS	59.9	60.6	2.0	715	758	8	P-MTIME, LVOL&BCRGR
860900	" S.5	K850217	HRS	60.0	60.4	1.8	725	750	8	P-MTIME, VL&BCRGR
860901	UT881292/ID167 S.2	K850220	HRS	63.3	63.2	5.7	875	869	2	
860902	FLICKER S'/K80410 S.9	K850236	HRS	60.6	61.0	3.2	760	785	6	Q-FYELD P-LVOL&BCRGR
860903	" S.11	K850238	HRS	62.0	61.6	3.0	825	800	6	P-BCRGR
860904	K750124/K80410 S.1	K850266	HRS	60.7	60.7	3.0	710	710	9	P-LVOL&BCRGR
860905	" S.5	K850270	HRS	61.5	61.3	3.2	745	733	8	P-LVOL&BCRGR
860906	K80420/K80433 S.1	K850277	HRS	61.3	62.4	4.4	715	783	6	P-LVOL&BCRGR
860907	WAMPUM	C1017691	HRS	61.3	60.9	4.0	880	855	3	
860908	K73579/BORAH	WA7075	HRS	64.3	62.7	3.3	900	801	2	

COMMENTS: The nursery was too low in protein to provide good meaningful data. All but selection K850220 appear significantly poorer than Wampum or WA7075 in baking properties. K850220 is outstanding in both milling and baking characteristics.

Q = Questionable; P = Poor; VP = Very Poor



NURSCO 24

ID, OR, WA

LABNUM	VARIETY	IDNO	CLASS	TWT	WPROT	WMIST	F.N.	DSI	FYELD	1/		FASH	FABS	FPEAK
										1/	1/			
860909	NORTH IDAHO REGION 1		SWW	60.6	9.5	9.3	390	.071	72.7	8.5	0.40	56.2	1.6	
860910	SOUTH IDAHO REGION 2		SWW	61.3	10.2	9.5	377	.068	72.2	8.4	0.42	56.1	1.4	
860911	SOUTH IDAHO REGION 2		HRW	62.5	11.2	9.8	400	.225	71.8	9.9	0.41	62.8	7.3	
860912	SOUTH IDAHO REGION 2		HRS	62.8	12.9	9.9	435	.066	71.3	11.3	0.46	69.4	5.8	
860913	PALOUSE REGION 3		SWW	60.4	10.3	9.0	379	.069	72.3	8.9	0.40	55.3	1.0	
860914	BIG BEND REGION 4		SWW	62.0	10.6	9.3	406	.061	71.0	9.2	0.40	55.6	2.7	
860915	BIG BEND REGION 4		CLUB	60.1	9.9	9.2	356	.078	73.8	8.8	0.41	53.4	2.8	
860916	BIG BEND REGION 4		HRW	63.9	12.3	9.6	481	.098	71.2	11.2	0.42	66.7	5.9	
860917	BIG BEND REGION 4		HRS	62.6	14.1	9.7	471	.060	70.5	12.7	0.43	67.2	9.6	
860918	WALLA WALLA REGION 5		SWW	60.1	11.3	9.2	395	.056	72.7	9.9	0.41	54.6	1.3	
860919	NORTH PENDLETON REGION 6		SWW	60.1	9.8	9.6	385	.077	74.2	8.6	0.39	53.0	1.6	
860920	COLUMBIA RIVER REGION 7		SWW	59.7	9.8	9.8	373	.074	72.1	7.8	0.38	52.1	1.3	
860921	COLUMBIA RIVER REGION 7		CLUB	59.9	7.8	9.5	319	.156	73.8	6.3	0.38	49.4	1.3	
860922	WILLAMETTE VALLEY REGION 8		SWW	61.2	9.7	10.9	393	.083	73.6	7.9	0.40	53.1	0.8	
860923	WATERVILLE REGION 9		SWW	62.8	9.8	9.3	369	.096	69.3	8.0	0.39	54.6	2.5	
860924	WATERVILLE REGION 9		CLUB	60.4	9.7	9.2	357	.098	74.2	8.3	0.40	52.3	2.6	
860925	WATERVILLE REGION 9		HRW	64.7	10.7	9.6	345	.135	70.3	9.9	0.40	65.8	6.5	
860926	HORSE HEAVEN REGION 10		SWW	59.5	10.6	9.6	393	.071	70.7	9.5	0.41	52.6	3.6	
860927	HORSE HEAVEN REGION 10		HRW	62.7	12.8	9.7	439	.088	70.4	12.0	0.43	67.4	5.4	
860928	HORSE HEAVEN REGION 10		HRS	61.7	13.9	9.5	392	.111	72.6	12.6	0.45	63.2	9.4	
860929	BLUE MOUNTAIN REGION 11		SWW	61.3	9.5	9.2	378	.073	73.8	8.3	0.41	53.8	1.6	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 24

ID, OR, WA

LABNUM	VARIETY	IDNO	CLASS	FSTAB	CODI	CAVOL	SCSOR	WTIN	NOSCO	BABS	MTIME	LVOL	BCRGR
860909	NORTH IDAHO REGION 1		SWW	4.7	8.74	1330	77.0	347	71				
860910	SOUTH IDAHO REGION 2		SWW	2.4	8.90	1315	76.0	350	74				
860911	SOUTH IDAHO REGION 2		HRW	10.7						62.8	3.3	835	5
860912	SOUTH IDAHO REGION 2		HRS	6.3						66.1	2.9	925	6
860913	PALOUSE REGION 3		SWW	4.0	8.87	1320	74.0	343	72				
860914	BIG BEND REGION 4		SWW	4.2	8.90	1300	76.0	352	72				
860915	BIG BEND REGION 4		CLUB	3.9	9.16	1320	75.0	347	71				
860916	BIG BEND REGION 4		HRW	10.0						65.3	2.8	935	5
860917	BIG BEND REGION 4		HRS	12.7						67.3	3.9	1005	2
860918	WALLA WALLA REGION 5		SWW	5.9	8.76	1330	78.0	347	69				
860919	NORTH PENDLETON REGION 6		SWW	3.5	9.16	1335	79.0	334	72				
860920	COLUMBIA RIVER REGION 7		SWW	3.9	9.10	1340	80.0	332	71				
860921	COLUMBIA RIVER REGION 7		CLUB	1.7	9.25	1335	80.0	323	74				
860922	WILLAMETTE VALLEY REGION 8		SWW	1.1	8.90	1295	75.0	333	71				
860923	WATERVILLE REGION 9		SWW	3.1	9.01	1335	77.0	350	73				
860924	WATERVILLE REGION 9		CLUB	3.2	9.07	1340	80.0	343	73				
860925	WATERVILLE REGION 9		HRW	10.9						64.1	2.9	860	6
860926	HORSE HEAVEN REGION 10		SWW	4.3	8.97	1305	76.0	346	70				
860927	HORSE HEAVEN REGION 10		HRW	9.3						64.2	2.3	995	2
860928	HORSE HEAVEN REGION 10		HRS	15.4						65.0	2.4	1025	4
860929	BLUE MOUNTAIN REGION 11		SWW	3.9	9.01	1270	74.0	347	71				

TWT = Test weight (lbs./bushel)

WPROT = Wheat Protein (%)

WMIST = Wheat Moisture (%)

F.N. = Falling Number (sec.)

DSI = Alpha-amylase (DU/g)

FYELD = Flour Yield (%)

FPROT = Flour Protein (%)

FASH = Flour Ash (%)

FABS = Farinograph Absorption (500 B.U., %)

FPEAK = Farinograph Peak Time (Min.)

FSTAB = Farinograph Stability (Min.)

CODI = Cookie Diameter

CAVOL = Japanese Sponge Cake Volume (cc)

SCSOR = Sponge Cake Score

WTIN = Udon Noodle Weight Increase (%)

NOSCO = Udon Noodle Score

BABS = Bake Absorption(%)

MTIME = Mix Time (Min.)

LVOL = Loaf Volume (cc)

BCRGR = Bread Crumb Grain

Score (1-9, 1 best)



NURSCO 25

PULLMAN, WA

G.W. BRUEHL

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
860930	WANSER									
860931		C1013844	HRW	65.6	73.3	0.33	91.7	10.9	63.0	3H
860932		6/77-99-1	HRW	61.6	71.4	0.34	89.4	11.5	63.2	8M
860933		77-99-2	HRW	63.2	72.5	0.32	91.3	11.5	64.5	5H
860934		77-99-6	HRW	62.8	71.7	0.32	90.6	10.4	63.8	6M
		77-99-7	HRW	62.8	71.1	0.31	90.6	10.8	64.2	6M
860935		77-99-10	HRW	63.2	70.8	0.33	89.2	11.7	63.7	5H
860936		77-99-11	HRW	62.8	71.3	0.33	89.7	10.1	61.9	8M
860937		77-99-12	HRW	63.2	71.8	0.32	90.5	9.6	61.4	6M
860938		77-99-13	HRW	62.0	70.7	0.32	89.7	10.5	62.9	8M
860939		77-99-14	HRW	62.0	70.5	0.32	89.1	10.9	62.9	8M
860940		77-99-15	HRW	63.2	71.1	0.30	90.8	10.7	62.2	6M
860941		77-99-17	HRW	62.4	71.7	0.34	89.4	11.1	62.7	6M
860942		77-99-19	HRW	63.6	71.9	0.33	90.1	11.1	62.8	8M
860943		77-99-21	HRW	64.0	71.2	0.31	90.7	10.3	62.0	6M
860944		77-99-23	HRW	61.6	70.1	0.33	88.6	10.9	62.0	8M
860945		77-99-24	HRW	64.4	70.7	0.30	90.4	9.6	62.3	6M
860946		77-99-25	HRW	62.4	70.9	0.33	89.4	9.5	61.7	6L
860947		6/77-99-29	HRW	61.6	71.2	0.35	88.3	11.4	62.4	5H
860948		77-99-30	HRW	63.6	69.2	0.33	87.4	9.4	60.5	6L
860949		77-99-31	HRW	64.4	71.3	0.32	90.2	9.9	60.9	4M
860950		77-99-34	HWW	64.0	71.2	0.33	89.6	10.0	63.8	8M

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.



NURSCO 25

G.W. BRUEHL

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
860930	WANSER	C1013844	HRW	64.6	64.7	3.7	920	927	2	
860931		77-99-1	HRW	65.4	64.9	5.2	895	864	3	
860932		77-99-2	HRW	65.2	64.7	5.0	905	874	4	Q-BCRGR
860933		77-99-6	HRW	63.9	64.5	3.9	850	887	6	P-BCRGR&LVOL
860934		77-99-7	HRW	64.7	64.9	3.6	870	882	6	P-BCRGR&LVOL
860935		77-99-10	HRW	65.1	64.4	4.1	880	837	4	Q-BCRGR&LVOL
860936		77-99-11	HRW	62.7	63.6	4.7	785	841	6	P-BCRGR, LVOL
860937		77-99-12	HRW	61.7	63.1	4.2	740	827	4	P-BCRGR&LVOL
860938		77-99-13	HRW	64.1	64.6	5.2	815	846	4	P-BCRGR&LVOL
860939		77-99-14	HRW	64.5	64.6	5.3	870	876	3	Q-LVOL
860940		77-99-15	HRW	63.6	63.9	3.9	860	879	5	P-BCRGR&LVOL
860941		77-99-17	HRW	64.5	64.4	4.0	850	844	3	P-LVOL
860942		77-99-19	HRW	64.6	64.5	5.1	850	844	3	P-LVOL
860943		77-99-21	HRW	63.0	63.7	4.1	855	898	4	P-LVOL Q-BCRGR
860944		77-99-23	HRW	63.6	63.7	5.0	855	861	3	P-LVOL
860945		77-99-24	HRW	62.6	64.0	4.1	765	852	5	P-LVOL&BCRGR
860946		77-99-25	HRW	61.9	63.4	4.7	715	808	8	VP-LVOL&BCRGR
860947		77-99-29	HRW	64.5	64.1	5.5	905	880	3	
860948		77-99-30	HRW	60.6	62.2	4.0	700	799	8	VP-LVOL&BCRGR
860949		77-99-31	HRW	61.5	62.6	3.9	800	868	4	P-LVOL&BCRGR
860950		77-99-34	HWW	64.5	65.5	4.3	830	892	3	Q-LVOL&BCRGR

COMMENTS:

These selections of 77-99 appear to be much alike in milling characteristics, with #2 slightly the best. Their flour protein has a range of 9.4 to 11.5% (#30 - #1, & 2). Baking quality shows a wide range with loaf volumes from 700 (#30) to 905 ml (#2) on an observed basis, but the range is reduced 75 ml after correction for protein (LVOLC). Selections 1 and 29 appear to be overall most promising, neither, however, are quite equal in milling or baking to Wanser in this nursery.





NURSCO 26

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
860951	K80429/K80417 S.4	6/ K850281	HRS	62.7	71.1	0.31	90.3	8.8	61.6	8M
860952	NB78410551/WA6510 S.4	K850291	HRS	63.0	71.3	0.32	90.0	8.8	60.5	8M
860953	" S.14	K850301	HRS	62.7	72.5	0.35	90.0	8.8	59.9	8M
860954	NHS183-74/K80321 S.1	6/ K850325	HRS	61.2	71.4	0.30	91.3	10.0	62.8	5H
860955	" S.3	6/ K850327	HRS	61.6	71.7	0.30	91.6	10.1	63.1	5H
860956	WA6511/K80435 S.3	K850336	HRS	62.8	71.6	0.30	91.3	10.3	61.5	2H
860957	WA6511/HP136410 S.2	6/ K850341	HRS	63.2	74.3	0.34	92.5	10.4	60.9	3H
860958	" S.5	K850344	HRS	62.6	71.5	0.34	89.2	8.9	62.3	6M
860959	WSMP122/NHS183-74 S.5	K850355	HRS	62.2	70.4	0.29	91.0	9.7	60.0	2H
860960	WPB903/ID167 S.1	K850359	HRS	65.4	72.0	0.28	93.0	10.5	63.0	5H
860961	" S.12	5/ K850370	HRS	64.7	72.6	0.30	92.6	9.2	62.1	6H
860962	" S.26	5/ K850384	HRS	64.3	72.7	0.28	93.6	10.1	63.7	6H
860963	K75272-41-6/WA6307 S.3	6/ K850392	HRS	62.0	72.1	0.32	91.0	9.7	62.9	6H
860964	MCKAY	C1017903	HRS	62.5	70.9	0.32	90.0	9.7	63.1	6H
860965	K73579/BORAH	WA7075	HRS	62.3	72.6	0.32	91.5	10.3	63.4	4H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
860951	K80429/K80417 S.4	K850281	HRS	62.1	63.3	6.3	850	924	2	2 P-LVOL&BCRGR
860952	NB78410551/WA6510 S.4	K850291	HRS	61.0	62.2	4.7	780	854	8	6 P-LVOL&BCRGR
860953	" S.14	K850301	HRS	60.4	61.6	4.6	770	844	6	3
860954	NHS183-74/K80321 S.1	K850325	HRS	64.5	64.5	3.9	890	890	3	2
860955	" S.3	K850327	HRS	64.9	64.8	4.1	860	854	2	4 Q-MTIME, LVOL&BCRGR
860956	WA6511/K80435 S.3	K850336	HRS	63.5	63.2	2.1	860	841	3	8 P-BCRGR
860957	WA6511/HP136410 S.2	K850341	HRS	63.0	62.6	3.0	920	895	8	8 P-MTIME&BCRGR
860958	" S.5	K850344	HRS	62.9	64.0	3.5	780	848	4	4 Q-BCRGR
860959	WSMP122/NHS183-74 S.5	K850355	HRS	61.4	61.7	1.8	855	874	8	
860960	WPB903/ID167 S.1	K850359	HRS	64.2	63.7	4.1	955	924	4	
860961	" S.12	K850370	HRS	63.0	63.8	5.1	885	935	2	
860962	" S.26	K850384	HRS	65.5	65.4	5.2	925	919	2	
860963	K75272-41-6/WA6307 S.3	K850392	HRS	64.3	64.6	6.9	860	879	2	
860964	MCKAY	C1017903	HRS	64.5	64.8	6.5	960	979	4	
860965	K73579/BORAH	WA7075	HRS	65.4	65.1	3.9	895	876	5	

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.

COMMENTS: Several of these selections appear to have overall quality equal or better than McKay or WA7475 (footnoted). See "Remarks" column for major deficiencies of other poor quality selections.

P = Poor; Q = Questionable



USDA, SEA, AR  
WESTERN WHEAT  
PULLMAN, WA.

## HARD RED SPRING 84 QUALITY 86

C.F. KONZAK

PULLMAN, WA

NURSCO 27

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
860966	K75272-41-6/WA6307 S.5	K850394	HRS	60.9	72.2	0.31	91.7	9.4	60.2	8M
860967	K80296/NHS7664 S.1	K850399	HRS	61.8	70.3	0.33	88.7	9.3	59.8	6L
860968	K80296/NHS7664 S.3	K850401	HRS	61.4	71.0	0.31	90.2	9.5	61.5	4H
860969	K80296/NK761011 S.1	K850404	HRS	63.5	70.5	0.34	88.2	9.5	60.5	2H
860970	K80296/NK761011 S.2	K850405	HRS	62.6	73.1	0.32	92.2	10.6	62.2	3H
860971	" S.3	K850406	HRS	62.6	71.6	0.33	90.0	9.0	60.3	6L
860972	" S.6	K850409	HRS	62.8	72.6	0.31	91.8	9.9	60.4	3H
860973	WA6307/ID167 S.2	K850521	HRS	63.1	72.4	0.28	93.5	9.1	58.7	8M
860974	" S.8	K850527	HRS	62.5	71.0	0.29	91.2	9.7	61.0	6M
860975	" S.21	K850540	HRS	63.9	71.5	0.32	90.2	9.7	61.8	6M
860976	WA6703/WAMPUM S.4	K850551	HRS	62.9	70.9	0.31	90.3	9.8	59.8	6M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
860966	K75272-41-6/WA6307 S.5	K850394	HRS	61.3	61.9	4.1	850	887	6	P-BCRGR
860967	K80296/NHS7664 S.1	K850399	HRS	60.8	61.5	5.0	725	768	8	P-LVOL&BCRGR
860968	K80296/NHS7664 S.3	K850401	HRS	62.7	63.2	3.9	850	881	5	P-BCRGR
860969	K80296/NK761011 S.1	K850404	HRS	60.7	61.2	2.0	890	921	5	P-MTIME&BCRGR
860970	K80296/NK761011 S.2	K850405	HRS	63.5	62.9	2.2	950	913	4	P-MTIME&BCRGR
860971	" S.3	K850406	HRS	61.0	62.0	4.5	750	812	8	P-LVOL&BCRGR
860972	" S.6	K850409	HRS	62.0	62.1	2.3	910	916	6	P-MTIME&BCRGR
860973	WA6307/ID167 S.2	K850521	HRS	59.5	60.4	4.8	840	896	6	P-BCRGR
860974	" S.8	K850527	HRS	62.4	62.7	4.2	785	804	7	P-LVOL&BCRGR
860975	" S.21	K850540	HRS	63.2	63.5	4.3	785	804	8	P-LVOL&BCRGR
860976	WA6703/WAMPUM S.4	K850551	HRS	61.3	61.5	3.4	855	867	7	P-BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.

COMMENTS: These selections were not supported with a reference check variety. As they are, they all were unsatisfactory in baking quality.

The primary deficiency was poor crumb structure. Selections K850404, 405, and 409 are also too short in mixing time to be acceptable.

All had very good milling properties.

P = Poor



NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI
860979	WA7187	1	SWS	63.6	70.4	0.29	92.0	9.2	57.6	6M	9.10
860980	WA7187	2	SWS	63.9	70.3	0.28	92.6	9.0	55.6	4M	9.11
860981	WA7187	3	SWS	64.3	70.3	0.27	93.4	9.3	57.3	6M	9.17
860982	WA7187	4	SWS	64.2	71.1	0.27	94.3	9.1	56.0	4M	9.24
860983	WA7187	5	SWS	64.3	69.8	0.29	91.8	9.5	57.8	4M	9.04
860984	WA7187	6	SWS	64.6	71.7	0.27	95.5	9.1	56.0	4M	9.42
860985	WA7187	7	SWS	64.7	70.8	0.26	94.5	9.5	57.6	6M	9.21
860986	WA7187	8	SWS	64.6	70.3	0.28	92.5	9.2	56.9	6M	9.29
860987	WA7187	9	SWS	64.2	70.1	0.28	92.7	9.5	56.8	6M	9.05
860988	WA7187	10	SWS	64.1	69.9	0.29	91.7	9.6	56.5	6M	8.97
860989	WA7187	11	SWS	64.2	69.6	0.27	92.5	9.2	58.1	6M	8.94
860990	WA7187	12	SWS	64.4	69.7	0.27	92.6	9.1	57.3	3M	9.14
860991	WA7187	13	SWS	64.0	70.0	0.27	93.2	9.8	57.5	4M	9.07
860992	WA7187	14	SWS	64.0	70.4	0.27	93.4	9.8	57.3	3M	9.11
860993	WA7187	15	SWS	64.4	69.9	0.29	91.8	9.9	57.7	6M	9.22
860994	WA7187	16	SWS	64.1	70.0	0.28	92.7	10.0	58.3	3M	8.97
860995	WA7187	17	SWS	64.5	72.2	0.28	95.1	9.8	58.7	6M	9.01
860996	WA7187	18	SWS	64.3	72.5	0.31	94.0	9.2	56.7	4M	9.11
860997	WA7187	19	SWS	63.9	69.4	0.27	92.3	10.2	57.9	4M	8.76
860998	WA7187	20	SWS	64.0	71.7	0.28	94.4	9.6	56.7	4M	9.34
860999	WA7187	21	SWS	64.7	72.4	0.28	95.4	9.5	56.9	4M	9.12
861000	WA7187	22	SWS	64.1	71.4	0.28	94.2	10.0	55.6	4M	9.15
861001	WA7187	23	SWS	64.2	69.7	0.27	92.6	9.6	56.7	6M	8.99
861002	WA7187	24	SWS	63.7	70.5	0.28	92.7	9.7	55.9	4M	9.25
861003	WA7187	25	SWS	64.2	70.3	0.26	93.9	9.8	56.0	4M	8.91
861004	WA7187	26	SWS	64.4	70.1	0.26	93.8	9.6	55.7	4M	9.19
861005	WA7187	27	SWS	64.3	69.6	0.26	93.3	9.6	56.7	4M	9.00
861006	WA7187	28	SWS	64.2	70.1	0.28	92.7	9.4	55.7	6M	9.00
861007	WA7187	29	SWS	63.6	69.8	0.27	92.9	9.2	57.2	4M	9.05
861008	WA7187	30	SWS	63.6	69.0	0.27	91.4	9.9	54.7	3M	9.01
861009	WA7187	31	SWS	63.5	70.3	0.29	92.3	9.6	55.5	4M	9.20
861010	WA7187	32	SWS	64.4	67.5	0.27	89.5	10.1	55.0	4M	8.80
861011	WA7187	33	SWS	64.6	68.8	0.28	91.2	9.8	56.0	6M	9.17
861012	WA7187	34	SWS	63.7	69.4	0.28	91.8	10.3	57.0	6M	8.86
861013	WA7187	35	SWS	63.9	69.6	0.29	91.1	10.3	57.2	4M	8.80

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/ 4/		3/ 3/			4/ 4/		
860979	WA7187	1	SWS	9.12	59.5	59.3	4.7	855	843	3	3
860980	WA7187	2	SWS	9.11	57.3	57.3	4.6	825	825	3	3
860981	WA7187	3	SWS	9.21	59.3	59.0	4.1	855	837	3	3
860982	WA7187	4	SWS	9.25	57.8	57.7	4.5	850	844	3	3
860983	WA7187	5	SWS	9.09	60.0	59.5	3.6	895	865	2	2
860984	WA7187	6	SWS	9.44	57.8	57.7	4.2	860	854	2	2
860985	WA7187	7	SWS	9.27	59.8	59.3	4.4	855	825	2	2
860986	WA7187	8	SWS	9.31	58.8	58.6	4.6	840	828	3	3
860987	WA7187	9	SWS	9.10	59.0	58.5	4.0	895	865	2	2
860988	WA7187	10	SWS	9.04	58.8	58.2	4.4	855	819	2	2
860989	WA7187	11	SWS	8.96	60.0	59.8	4.5	850	838	2	2
860990	WA7187	12	SWS	9.15	59.1	59.0	3.3	875	869	2	2
860991	WA7187	13	SWS	9.16	60.0	59.2	3.4	885	837	2	2
860992	WA7187	14	SWS	9.20	59.8	59.0	3.6	890	842	3	3
860993	WA7187	15	SWS	9.32	60.3	59.4	3.7	855	801	2	2
860994	WA7187	16	SWS	9.08	60.5	59.5	3.2	975	915	3	3
860995	WA7187	17	SWS	9.10	61.2	60.4	4.7	925	877	2	2
860996	WA7187	18	SWS	9.13	58.6	58.4	4.2	865	853	2	2
860997	WA7187	19	SWS	8.89	60.8	59.6	3.1	955	883	2	2
860998	WA7187	20	SWS	9.40	59.0	58.4	4.1	930	894	2	2
860999	WA7187	21	SWS	9.18	58.1	57.6	3.5	880	850	2	2
861000	WA7187	22	SWS	9.26	57.3	56.3	3.1	965	905	3	3
861001	WA7187	23	SWS	9.05	59.0	58.4	4.3	925	889	2	2
861002	WA7187	24	SWS	9.33	58.3	57.6	4.3	900	858	3	3
861003	WA7187	25	SWS	9.00	58.5	57.7	3.2	885	837	3	3
861004	WA7187	26	SWS	9.25	58.0	57.4	3.5	875	839	3	3
861005	WA7187	27	SWS	9.07	59.0	58.4	3.6	885	849	3	3
861006	WA7187	28	SWS	9.04	57.8	57.4	4.3	880	856	2	2
861007	WA7187	29	SWS	9.07	59.1	58.9	4.1	850	838	5	5
861008	WA7187	30	SWS	9.11	57.3	56.4	2.8	870	816	4	4
861009	WA7187	31	SWS	9.27	57.8	57.2	4.2	870	834	4	4
861010	WA7187	32	SWS	8.92	57.8	56.7	3.5	900	834	3	3
861011	WA7187	33	SWS	9.26	58.5	57.7	4.1	880	832	2	2
861012	WA7187	34	SWS	9.01	60.0	58.7	3.9	880	802	4	4
861013	WA7187	35	SWS	8.94	60.2	58.9	3.6	910	832	2	2





VARIETAL SELECTION TRIALS

NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI
						1/ 3/		1/ 3/			
861014	WA7187	36	SWS	64.4	70.7	0.28	93.0	9.6	57.5	4M	8.95
861015	WA7187	37	SWS	64.3	70.4	0.28	93.1	9.8	55.7	4M	8.96
861016	WA7187	38	SWS	64.1	71.2	0.28	94.0	9.7	56.7	6M	9.14
861017	WA7187	39	SWS	64.0	70.7	0.30	92.2	9.6	56.0	4M	9.12
861018	WA7187	5/40	SWS	64.6	72.8	0.28	96.1	10.1	57.5	4M	9.27
861019	WA7187	41	SWS	63.9	72.4	0.30	94.2	8.6	55.5	4L	9.22
861020	WA7187	42	SWS	64.1	71.0	0.28	94.0	9.8	57.0	4M	9.14
861021	WA7187	43	SWS	64.7	71.0	0.27	94.1	9.6	56.7	4M	9.06
861022	WA7187	44	SWS	64.1	70.9	0.27	94.2	9.5	56.8	6M	9.30
861023	WA7187	45	SWS	64.1	69.4	0.27	92.6	10.4	56.2	4M	9.12
861024	WA7187	46	SWS	64.3	70.5	0.28	92.7	10.2	56.8	6M	9.07
861025	WA7187	47	SWS	63.6	72.0	0.27	95.4	8.6	55.2	4L	9.22
861026	WA7187	48	SWS	64.8	70.6	0.27	94.0	9.6	57.9	6M	9.15
861027	WA7187	49	SWS	65.3	71.0	0.27	94.0	9.7	57.3	4M	9.07
861028	WA7187	50	SWS	64.3	71.5	0.31	92.7	9.0	57.4	4L	9.30
861029	WA7187	5/51	SWS	63.7	70.2	0.27	93.1	9.9	57.7	4M	9.16
861030	WA7187	5/52	SWS	66.2	71.4	0.27	94.8	10.1	59.0	6M	9.15
861031	WA7187	53	SWS	64.4	70.1	0.25	94.7	10.5	56.8	4M	9.02
861032	WA7187	6/54	SWS	64.9	69.9	0.25	94.5	10.1	58.0	6M	8.99
861033	WA7187	55	SWS	64.2	71.2	0.27	94.7	9.9	57.4	6M	8.71
861034	WA7187	56	SWS	63.4	69.5	0.25	93.8	10.1	57.3	4M	8.82
861035	WA7187	57	SWS	64.2	70.9	0.26	94.6	9.4	55.9	6M	9.07
861036	WA7187	6/58	SWS	63.9	70.1	0.29	92.0	10.0	57.3	6M	9.00
861037	WA7187	59	SWS	64.1	70.6	0.27	93.8	9.8	56.5	4M	9.14
861038	WA7187	60	SWS	64.0	69.6	0.27	92.7	10.1	58.7	4M	9.04
861039	WA7188	1	SWS	63.5	72.8	0.34	92.2	8.0	56.5	3L	9.15
861040	WA7188	2	SWS	63.8	72.9	0.32	93.6	8.3	57.1	4L	8.92
861041	WA7188	3	SWS	63.9	72.6	0.33	92.8	8.7	56.6	4L	9.07
861042	WA7188	4	SWS	63.5	72.2	0.32	92.9	8.3	57.6	4L	9.10
861043	WA7188	5	SWS	63.7	72.6	0.31	93.6	8.3	56.5	4L	9.01
861044	WA7188	6	SWS	63.6	72.2	0.31	93.2	8.3	57.7	3L	9.15
861045	WA7188	7	SWS	64.4	73.4	0.31	94.8	7.9	55.9	3L	8.91
861046	WA7188	8	SWS	63.7	72.5	0.29	94.7	8.2	57.3	4L	9.00
861047	WA7188	9	SWS	63.7	72.1	0.29	94.2	8.4	56.6	3L	8.96
861048	WA7188	6/10	SWS	64.0	72.3	0.29	94.7	8.4	57.6	3L	9.06



VARIETAL SELECTION TRIALS

NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	CODIC 4/	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
861014	WA7187	36	SWS	9.02	59.8	59.2	4.5	905	869	2	
861015	WA7187	37	SWS	9.05	58.2	57.4	4.0	905	857	3	
861016	WA7187	38	SWS	9.21	59.1	58.4	4.7	885	843	2	
861017	WA7187	39	SWS	9.19	58.3	57.7	4.2	865	829	2	
861018	WA7187	40	SWS	9.40	59.8	58.7	3.6	910	844	2	
861019	WA7187	41	SWS	9.18	56.8	57.2	4.0	800	824	6	
861020	WA7187	42	SWS	9.23	59.5	58.7	3.7	860	812	5	
861021	WA7187	43	SWS	9.13	59.0	58.4	3.6	895	859	3	
861022	WA7187	44	SWS	9.35	59.0	58.5	4.5	875	845	4	
861023	WA7187	45	SWS	9.28	59.3	57.9	3.4	930	846	3	
861024	WA7187	46	SWS	9.21	59.7	58.5	3.7	915	843	3	
861025	WA7187	47	SWS	9.18	56.5	56.9	3.9	785	809	6	
861026	WA7187	48	SWS	9.22	60.2	59.6	4.2	895	859	3	
861027	WA7187	49	SWS	9.15	59.7	59.0	4.0	870	828	2	
861028	WA7187	50	SWS	9.30	58.1	58.1	3.5	805	805	3	
861029	WA7187	51	SWS	9.26	59.3	58.4	3.3	940	886	2	
861030	WA7187	52	SWS	9.27	61.8	60.7	4.8	930	864	2	
861031	WA7187	53	SWS	9.19	60.0	58.5	3.3	930	840	4	
861032	WA7187	54	SWS	9.11	60.8	59.7	3.7	965	899	3	
861033	WA7187	55	SWS	8.81	60.0	59.1	4.4	955	901	4	
861034	WA7187	56	SWS	8.95	59.6	58.5	3.3	925	859	4	
861035	WA7187	57	SWS	9.12	58.0	57.6	4.0	875	851	3	
861036	WA7187	58	SWS	9.11	60.0	59.0	4.6	910	850	2	
861037	WA7187	59	SWS	9.23	59.0	58.2	3.4	880	832	3	
861038	WA7187	60	SWS	9.16	61.0	59.9	4.1	920	854	4	
861039	WA7188	1	SWS	9.04	56.2	57.2	3.2	795	855	4	
861040	WA7188	2	SWS	8.85	57.6	58.3	4.0	725	767	4	
861041	WA7188	3	SWS	9.04	58.0	58.3	3.7	775	793	4	
861042	WA7188	4	SWS	9.02	58.1	58.8	3.6	775	817	4	
861043	WA7188	5	SWS	8.94	57.5	58.2	3.5	765	807	3	
861044	WA7188	6	SWS	9.07	57.2	57.9	3.3	750	792	3	
861045	WA7188	7	SWS	8.79	55.5	56.6	3.4	750	816	3	
861046	WA7188	8	SWS	8.91	56.7	57.5	3.4	760	808	4	
861047	WA7188	9	SWS	8.90	56.2	56.8	3.0	750	786	4	
861048	WA7188	10	SWS	9.00	57.2	57.8	3.0	815	851	3	



NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI
861049	WA7188	11	SWS	63.6	72.2	0.29	94.3	8.2	56.1	3L	8.89
861050	WA7188	12	SWS	63.0	72.1	0.30	93.6	8.3	57.0	3L	9.02
861051	WA7188	13	SWS	64.2	73.9	0.30	96.2	8.2	56.2	3L	9.21
861052	WA7188	14	SWS	63.8	72.1	0.30	93.9	8.3	57.0	3L	9.21
861053	WA7188	15	SWS	63.9	72.2	0.30	94.1	8.5	56.0	3L	9.06
861054	WA7188	16	SWS	63.4	71.8	0.30	93.2	8.9	56.9	3M	9.22
861055	WA7188	17	SWS	63.9	73.1	0.30	94.8	8.1	55.9	3L	8.82
861056	WA7188	18	SWS	63.2	73.3	0.32	94.3	8.5	56.8	3L	9.32
861057	WA7188	6/ 19	SWS	63.5	73.3	0.32	94.0	8.4	56.0	3L	9.10
861058	WA7188	20	SWS	63.0	72.4	0.33	92.5	8.8	57.2	3L	8.90
861059	WA7188	21	SWS	63.6	73.3	0.33	93.6	8.2	55.9	3L	9.19
861060	WA7188	6/ 22	SWS	63.7	72.2	0.32	92.5	8.1	57.0	3L	9.05
861061	WA7188	24	SWS	63.6	73.6	0.33	94.1	8.2	56.6	3L	9.07
861062	WA7188	25	SWS	63.2	73.0	0.33	93.3	8.3	57.2	3L	8.91
861063	WA7188	26	SWS	63.2	72.7	0.33	92.9	7.7	56.9	3L	9.10
861064	WA7188	27	SWS	63.5	72.6	0.33	92.8	7.7	57.3	3L	8.91
861065	WA7188	6/ 28	SWS	63.7	73.4	0.32	94.0	7.8	56.1	3L	9.11
861066	WA7188	6/ 29	SWS	63.3	71.9	0.32	92.2	8.0	57.1	3L	9.09
861067	WA7188	30	SWS	63.0	72.6	0.32	92.9	7.9	55.6	3L	8.86
861068	WA7188	6/ 31	SWS	63.8	72.3	0.33	91.9	8.2	57.3	3L	9.21
861069	WA7188	32	SWS	63.0	72.0	0.34	91.2	8.1	55.8	3L	8.97
861070	WA7188	33	SWS	63.1	71.9	0.32	92.1	8.6	56.8	3L	9.17
861071	WA7188	34	SWS	63.2	73.0	0.32	93.4	8.0	57.0	3L	8.95
861072	WA7188	35	SWS	63.3	72.9	0.33	93.2	8.2	55.7	3L	9.06
861073	WA7188	6/ 36	SWS	63.3	72.5	0.33	92.6	8.3	56.2	3L	9.00
861074	WA7188	37	SWS	63.4	72.2	0.33	92.3	8.1	55.8	3L	8.92
861075	WA7188	38	SWS	63.5	72.9	0.33	92.8	8.4	57.2	3L	8.90
861076	WA7188	39	SWS	63.5	73.5	0.33	93.8	8.2	55.3	3L	9.16
861077	WA7188	40	SWS	63.4	73.3	0.34	93.0	8.3	58.2	3L	8.87
861078	WA7188	41	SWS	63.8	73.1	0.33	92.9	8.0	56.0	3L	8.91
861079	WA7188	6/ 42	SWS	63.4	72.2	0.34	91.6	8.3	56.8	3L	9.16
861080	WA7188	43	SWS	64.2	71.9	0.33	91.9	8.4	56.1	3L	8.99
861081	WA7188	44	SWS	63.6	72.8	0.32	93.3	7.8	57.2	3L	8.99
861082	WA7188	45	SWS	64.1	73.1	0.31	94.2	8.1	56.3	3L	8.96
861083	WA7188	46	SWS	63.5	72.6	0.31	93.6	8.9	56.6	3L	9.02





VARIETAL SELECTION TRIALS

PULLMAN, WA

C. F. KONZAK

NURSCO 28

LABNUM	VARIETY	IDNO	CLASS	CODIC 4/	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
861049	WA7188	11	SWS	8.80	56.0	56.8	2.8	755	803	4	
861050	WA7188	12	SWS	8.95	57.5	58.2	3.3	775	817	4	
861051	WA7188	13	SWS	9.12	57.1	57.9	3.2	780	828	4	
861052	WA7188	14	SWS	9.14	57.5	58.2	3.4	770	812	4	
861053	WA7188	15	SWS	9.01	56.7	57.2	3.1	775	805	4	
861054	WA7188	16	SWS	9.21	58.5	58.6	2.6	840	846	4	
861055	WA7188	17	SWS	8.73	55.7	56.6	2.6	780	834	4	
861056	WA7188	18	SWS	9.27	57.5	58.0	3.0	840	870	5	
861057	WA7188	19	SWS	9.03	57.1	57.7	3.0	860	896	3	
861058	WA7188	20	SWS	8.88	58.2	58.4	3.3	840	852	3	
861059	WA7188	21	SWS	9.10	56.8	57.6	3.1	805	853	4	
861060	WA7188	22	SWS	8.95	57.3	58.2	3.2	825	879	3	
861061	WA7188	24	SWS	8.99	57.5	58.3	3.2	780	828	3	
861062	WA7188	25	SWS	8.84	57.7	58.4	3.1	835	877	4	
861063	WA7188	26	SWS	8.96	57.3	58.6	3.1	805	883	6	
861064	WA7188	27	SWS	8.77	57.2	58.5	3.4	760	838	5	
861065	WA7188	28	SWS	8.98	56.6	57.8	3.3	790	862	3	
861066	WA7188	29	SWS	8.98	57.3	58.3	3.4	795	855	3	
861067	WA7188	30	SWS	8.74	56.2	57.3	3.6	780	846	3	
861068	WA7188	31	SWS	9.12	57.7	58.5	3.6	810	858	3	
861069	WA7188	32	SWS	8.88	56.6	57.5	3.4	800	854	4	
861070	WA7188	33	SWS	9.13	57.6	58.0	3.7	815	839	4	
861071	WA7188	34	SWS	8.84	57.7	58.7	4.0	785	845	4	
861072	WA7188	35	SWS	8.97	56.1	56.9	3.6	805	853	4	
861073	WA7188	36	SWS	8.92	57.2	57.9	3.2	805	847	3	
861074	WA7188	37	SWS	8.83	56.1	57.0	3.1	790	844	6	
861075	WA7188	38	SWS	8.83	57.8	58.4	3.1	825	861	4	
861076	WA7188	39	SWS	9.07	55.7	56.5	3.3	800	848	6	
861077	WA7188	40	SWS	8.80	57.7	58.4	3.4	825	867	6	
861078	WA7188	41	SWS	8.80	56.2	57.2	3.1	810	870	6	
861079	WA7188	42	SWS	9.09	57.3	58.0	3.5	805	847	3	
861080	WA7188	43	SWS	8.92	56.7	57.3	3.7	795	831	4	
861081	WA7188	44	SWS	8.86	56.7	57.9	3.2	800	872	4	
861082	WA7188	45	SWS	8.86	56.6	57.5	3.0	815	869	4	
861083	WA7188	46	SWS	9.01	57.2	57.3	2.8	850	856	4	



VARIETAL SELECTION TRIALS

NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI
						1/ 3/		1/ 3/			
861084	WA7188	47	SWS	63.6	72.6	0.33	92.8	9.0	55.9	3M	8.99
861085	WA7188	48	SWS	63.4	71.9	0.32	92.5	8.9	57.0	3M	8.77
861086	WA7188	49	SWS	63.7	72.6	0.33	92.6	9.4	56.0	4M	8.95
861087	WA7188	6/50	SWS	63.3	71.8	0.34	90.9	8.5	57.2	4M	9.29
861088	WA7188	51	SWS	63.5	72.3	0.34	91.5	8.3	55.5	3L	9.01
861089	WA7188	52	SWS	62.9	71.5	0.34	90.5	8.5	56.8	4M	9.11
861090	WA7188	53	SWS	62.9	72.5	0.34	91.8	8.4	55.9	4M	8.97
861091	WA7188	54	SWS	63.4	73.0	0.34	92.2	8.6	55.7	4M	9.22
861092	WA7188	55	SWS	63.6	73.2	0.34	92.7	8.1	55.6	3L	8.92
861093	WA7188	6/56	SWS	62.6	72.3	0.34	91.8	8.7	57.2	4M	9.19
861094	WA7188	57	SWS	62.8	72.4	0.34	91.8	8.8	55.8	4M	9.09
861095	WA7188	58	SWS	63.0	72.7	0.33	92.9	8.5	57.3	4M	9.10
861096	WA7188	59	SWS	63.1	73.1	0.33	93.3	8.5	55.9	3M	9.00
861097	WA7188	60	SWS	63.5	72.9	0.35	91.5	8.6	56.1	3M	8.97
861098	WA7186	1	SWS	63.7	70.7	0.31	91.3	9.2	57.9	4M	8.90
861099	WA7186	2	SWS	63.6	71.0	0.30	92.2	8.7	56.6	6L	9.02
861100	WA7186	3	SWS	63.4	71.4	0.29	93.2	8.8	56.5	6L	9.20
861101	WA7186	4	SWS	63.5	71.9	0.29	94.0	8.8	55.8	6L	9.16
861102	WA7186	5	SWS	63.4	71.7	0.28	94.3	8.6	55.5	6L	9.25
861103	WA7186	6	SWS	63.8	71.8	0.29	94.2	9.1	55.9	6L	9.15
861104	WA7186	7	SWS	63.5	71.3	0.26	95.2	9.4	55.6	6L	9.05
861105	WA7186	8	SWS	64.2	71.7	0.29	93.8	8.5	56.0	6L	9.21
861106	WA7186	9	SWS	63.6	70.4	0.31	91.2	9.0	56.1	6L	9.16
861107	WA7186	10	SWS	64.2	70.6	0.28	93.3	8.9	56.6	6L	9.09
861108	WA7186	11	SWS	64.2	70.7	0.29	92.8	9.3	56.2	4L	9.05
861109	WA7186	12	SWS	64.5	71.4	0.29	93.7	8.8	56.3	6L	9.25
861110	WA7186	13	SWS	64.1	70.7	0.29	92.8	8.9	56.6	6L	8.99
861111	WA7186	14	SWS	64.7	71.3	0.29	93.5	8.9	56.6	6L	9.31
861112	WA7186	6/15	SWS	65.0	70.7	0.30	92.1	9.5	56.5	6L	9.16
861113	WA7186	16	SWS	64.4	70.4	0.29	92.6	8.9	56.9	6L	9.39
861114	WA7186	17	SWS	64.3	70.9	0.29	92.9	8.6	56.7	6L	9.37
861115	WA7186	18	SWS	64.5	71.7	0.29	93.6	8.6	57.2	6L	9.05
861116	WA7186	19	SWS	64.1	72.2	0.30	94.1	8.7	56.2	6L	9.07
861117	WA7186	20	SWS	64.1	71.0	0.27	94.1	9.3	57.1	6L	9.09
861118	WA7186	21	SWS	64.5	72.0	0.29	94.1	8.9	55.4	6L	9.16



## VARIETAL SELECTION TRIALS

NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	CODIC 4/	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
861084	WA7188	47	SWS	8.99	57.1	57.1	2.7	850	850	5	
861085	WA7188	48	SWS	8.76	58.1	58.2	2.5	825	831	4	
861086	WA7188	49	SWS	8.99	57.6	57.2	3.5	815	791	3	
861087	WA7188	50	SWS	9.23	57.9	58.4	3.7	805	835	3	
861088	WA7188	51	SWS	8.94	56.5	57.2	3.2	790	832	4	
861089	WA7188	52	SWS	9.06	57.5	58.0	3.6	825	855	4	
861090	WA7188	53	SWS	8.91	56.5	57.1	3.6	810	846	3	
861091	WA7188	54	SWS	9.18	56.5	56.9	3.4	785	809	4	
861092	WA7188	55	SWS	8.83	56.4	57.3	3.3	780	834	3	
861093	WA7188	56	SWS	9.15	58.6	58.9	3.6	840	858	3	
861094	WA7188	57	SWS	9.07	57.3	57.5	3.2	805	817	4	
861095	WA7188	58	SWS	9.04	58.0	58.5	3.3	800	830	5	
861096	WA7188	59	SWS	8.94	56.6	57.1	3.2	805	835	4	
861097	WA7188	60	SWS	8.93	57.4	57.8	3.0	815	839	4	
861098	WA7186	1	SWS	8.92	59.8	59.6	5.1	835	823	4	
861099	WA7186	2	SWS	8.99	58.0	58.3	5.3	790	808	4	
861100	WA7186	3	SWS	9.18	58.0	58.2	5.2	815	827	4	
861101	WA7186	4	SWS	9.14	57.3	57.5	5.1	800	812	4	
861102	WA7186	5	SWS	9.21	56.8	57.2	4.5	780	804	3	
861103	WA7186	6	SWS	9.16	57.7	57.6	4.8	810	804	4	
861104	WA7186	7	SWS	9.09	57.7	57.3	5.0	850	826	3	
861105	WA7186	8	SWS	9.16	57.2	57.7	5.0	765	795	3	
861106	WA7186	9	SWS	9.16	57.8	57.8	4.5	785	785	4	
861107	WA7186	10	SWS	9.08	58.2	58.3	5.5	800	806	4	
861108	WA7186	11	SWS	9.08	58.2	57.9	4.4	820	802	4	
861109	WA7186	12	SWS	9.23	57.8	58.0	4.8	805	817	4	
861110	WA7186	13	SWS	8.98	58.2	58.3	5.0	765	771	3	
861111	WA7186	14	SWS	9.30	58.2	58.3	4.4	805	811	5	
861112	WA7186	15	SWS	9.22	58.7	58.2	4.8	840	810	3	
861113	WA7186	16	SWS	9.38	58.5	58.6	4.3	795	801	4	
861114	WA7186	17	SWS	9.33	58.0	58.4	5.1	790	814	3	
861115	WA7186	18	SWS	9.01	58.5	58.9	5.1	795	819	5	
861116	WA7186	19	SWS	9.04	57.6	57.9	4.4	800	818	4	
861117	WA7186	20	SWS	9.12	59.1	58.8	4.8	860	842	4	
861118	WA7186	21	SWS	9.15	57.0	57.1	4.8	760	766	5	



## VARIETAL SELECTION TRIALS

NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI
						1/ 1/		1/ 1/	3/ 3/		
861119	WA7186	22	SWS	64.5	70.7	0.29	92.7	9.3	55.8	6L	9.00
861120	WA7186	23	SWS	64.2	71.1	0.28	94.1	8.7	55.1	6L	9.14
861121	WA7186	5/24	SWS	64.0	71.8	0.28	94.4	8.7	55.4	6L	9.37
861122	WA7186	5/25	SWS	63.9	71.0	0.27	94.6	8.9	56.0	6L	9.30
861123	WA7186	26	SWS	63.9	71.9	0.29	94.3	8.7	56.6	6L	9.10
861124	WA7186	27	SWS	62.9	71.0	0.29	92.7	8.7	55.1	6L	9.04
861125	WA7186	28	SWS	63.6	71.0	0.28	93.7	9.0	56.0	6L	9.04
861126	WA7186	29	SWS	63.9	70.2	0.28	92.6	8.9	55.4	6L	9.19
861127	WA7186	5/30	SWS	64.2	71.6	0.29	93.8	8.3	56.7	4L	9.47
861128	WA7186	31	SWS	63.6	71.2	0.30	92.3	8.5	55.8	6L	9.27
861129	WA7186	32	SWS	64.0	71.3	0.28	94.0	8.7	57.1	6L	9.00
861130	WA7186	33	SWS	64.3	71.4	0.29	93.4	8.8	54.8	6L	9.15
861131	WA7186	5/34	SWS	64.3	71.2	0.29	93.4	8.7	56.1	6L	9.19
861132	WA7186	5/35	SWS	64.5	71.3	0.28	94.2	9.2	56.2	6L	9.01
861133	WA7186	36	SWS	63.2	70.3	0.28	92.9	8.9	55.9	3M	9.05
861134	WA7186	37	SWS	64.1	70.8	0.29	93.1	8.6	56.2	6L	9.04
861135	WA7186	38	SWS	64.5	71.5	0.29	93.8	8.6	55.7	6L	9.00
861136	WA7186	39	SWS	64.4	71.7	0.29	93.6	8.6	56.5	6L	9.19
861137	WA7186	40	SWS	63.8	68.2	0.30	88.7	9.9	55.7	4M	8.69
861138	WA7186	41	SWS	64.5	71.6	0.28	94.7	8.9	56.4	6L	9.20
861139	WA7186	42	SWS	64.2	71.6	0.28	94.5	9.0	55.0	4L	8.97
861140	WA7186	43	SWS	64.5	70.6	0.28	93.3	9.3	56.6	6L	9.12
861141	WA7186	44	SWS	64.4	72.1	0.28	95.1	9.3	56.3	6L	9.02
861142	WA7186	5/45	SWS	64.6	72.3	0.29	94.4	9.4	56.4	4L	9.26
861143	WA7186	46	SWS	63.9	71.3	0.31	92.2	9.8	56.5	3L	8.97
861144	WA7186	47	SWS	64.2	72.4	0.29	94.5	9.0	56.8	4L	9.01
861145	WA7186	5/48	SWS	64.2	71.2	0.29	93.1	9.1	56.3	6L	9.15
861146	WA7186	49	SWS	64.6	71.6	0.29	93.8	8.8	56.3	6L	9.01
861147	WA7186	50	SWS	64.8	71.8	0.28	94.6	9.0	56.0	6L	9.00
861148	WA7186	51	SWS	64.6	71.0	0.29	93.0	8.7	56.1	6L	9.26
861149	WA7186	52	SWS	64.0	71.5	0.30	93.1	8.8	55.3	6L	9.16
861150	WA7186	53	SWS	64.1	71.0	0.28	93.7	9.4	57.2	4M	8.96
861151	WA7186	54	SWS	64.1	71.9	0.30	93.7	8.6	55.0	4L	9.10
861152	WA7186	55	SWS	62.7	69.6	0.33	88.7	8.7	55.1	4L	9.14
861153	WA7186	56	SWS	64.1	71.7	0.29	93.7	8.7	55.8	4L	9.15





## VARIETAL SELECTION TRIALS

PULLMAN, WA

C.F. KONZAK

NURSCO 28

LABNUM	VARIETY	IDNO	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/		3/			4/		
861119	WA7186	22	SWS	9.03	57.8	57.5	4.5	800	782	2	
861120	WA7186	23	SWS	9.10	56.5	56.8	4.6	800	818	2	
861121	WA7186	24	SWS	9.34	56.8	57.1	4.8	830	848	3	
861122	WA7186	25	SWS	9.29	57.6	57.7	5.0	820	826	2	
861123	WA7186	26	SWS	9.07	58.0	58.3	5.7	840	858	4	
861124	WA7186	27	SWS	9.00	56.5	56.8	5.2	800	818	3	
861125	WA7186	28	SWS	9.04	57.7	57.7	4.7	800	800	3	
861126	WA7186	29	SWS	9.18	57.0	57.1	5.1	795	801	2	
861127	WA7186	30	SWS	9.40	57.7	58.4	5.0	800	842	2	
861128	WA7186	31	SWS	9.22	57.0	57.5	5.1	765	795	4	
861129	WA7186	32	SWS	8.97	58.0	58.3	5.2	825	843	3	
861130	WA7186	33	SWS	9.13	56.3	56.5	5.7	805	817	2	
861131	WA7186	34	SWS	9.15	57.5	57.8	4.7	835	853	2	
861132	WA7186	35	SWS	9.03	58.1	57.9	4.5	855	843	2	
861133	WA7186	36	SWS	9.04	57.5	57.6	2.5	795	801	7	
861134	WA7186	37	SWS	8.99	57.5	57.9	4.8	755	779	3	
861135	WA7186	38	SWS	8.96	57.0	57.4	4.7	805	829	2	
861136	WA7186	39	SWS	9.14	57.8	58.2	5.2	785	809	3	
861137	WA7186	40	SWS	8.79	58.3	57.4	4.5	840	786	4	
861138	WA7186	41	SWS	9.19	58.0	58.1	4.6	795	801	4	
861139	WA7186	42	SWS	8.97	56.7	56.7	4.4	785	785	2	
861140	WA7186	43	SWS	9.16	58.6	58.3	4.5	795	777	2	
861141	WA7186	44	SWS	9.06	58.3	58.0	4.5	810	792	2	
861142	WA7186	45	SWS	9.31	58.5	58.1	4.1	835	811	2	
861143	WA7186	46	SWS	9.06	59.0	58.2	3.5	855	807	5	
861144	WA7186	47	SWS	9.01	58.5	58.5	4.3	830	830	4	
861145	WA7186	48	SWS	9.16	58.1	58.0	4.5	840	834	2	
861146	WA7186	49	SWS	8.99	57.8	58.0	4.7	800	812	4	
861147	WA7186	50	SWS	9.00	57.7	57.7	4.5	815	815	2	
861148	WA7186	51	SWS	9.23	57.5	57.8	5.1	790	808	3	
861149	WA7186	52	SWS	9.14	57.8	58.0	4.6	770	782	3	
861150	WA7186	53	SWS	9.01	59.3	58.9	4.2	845	821	4	
861151	WA7186	54	SWS	9.06	56.3	56.7	4.0	800	824	4	
861152	WA7186	55	SWS	9.10	56.5	56.8	4.0	755	773	4	
861153	WA7186	56	SWS	9.12	57.2	57.5	4.5	800	818	3	



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## VARIETAL SELECTION TRIALS

C.F. KONZAK

PULLMAN, WA

NURSCO 28

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI
861154	WA7186	57	SWS	64.8	71.3	0.29	93.6	8.9	56.2	6L	9.26
861155	WA7186	58	SWS	64.5	71.4	0.28	94.2	8.6	54.3	6L	9.25
861156	WA7186	59	SWS	63.5	71.7	0.29	93.7	9.0	55.5	4L	9.26
861157	WA7186	60	SWS	64.4	71.4	0.29	93.4	9.1	56.0	4L	8.95



NURSCO 28

PULLMAN, WA

C.F. KONZAK

LABNUM	VARIETY	IDNO	CLASS	CODIC	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
				4/		3/			4/		
861154	WA7186	57	SWS	9.25	57.8	57.9	5.2	790	796		5
861155	WA7186	58	SWS	9.21	55.6	56.0	4.6	755	779		3
861156	WA7186	59	SWS	9.26	57.2	57.2	3.9	805	805		5
861157	WA7186	60	SWS	8.96	57.8	57.7	4.3	810	804		5

COMMENTS: These are 60 plant lines each of WA7186, 7187, & 7188 selected for their dual purpose baking properties. There is significant variation within the lines for both cookie and bread making properties. The following ranges and averages were observed:

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VAR=WA7186

N Obs	Variable	Minimum	Maximum	Mean	Std Dev	Std Error	CV
60	FYELD	68.20	72.40	71.23	0.48	0.09	0.86
	HSCOR	88.70	93.20	93.37	1.21	0.16	1.29
	FFRD	8.30	9.90	8.92	0.32	0.04	3.56
	CODI	8.69	9.47	9.13	0.14	0.02	1.49
	CODIC	8.79	9.40	9.12	0.12	0.02	1.35
	BABSC	56.00	59.60	57.80	0.65	0.08	1.12
	LVOL	755.00	860.00	804.92	26.29	3.39	3.27
	LVOLC	766.00	858.00	809.72	20.91	2.70	2.58
	BCRGR	2.00	7.00	3.40	1.09	0.14	32.13

VAR=WA7187

N Obs	Variable	Minimum	Maximum	Mean	Std Dev	Std Error	CV
60	FYELD	67.50	72.80	70.47	0.98	0.13	1.39
	HSCOR	89.50	96.10	93.28	1.26	0.16	1.35
	FFRD	8.60	10.50	9.66	0.41	0.05	4.28
	CODI	8.71	9.42	9.08	0.15	0.02	1.60
	CODIC	8.81	9.44	9.16	0.13	0.02	1.42
	BABSC	56.30	60.70	58.45	0.95	0.12	1.62
	LVOL	785.00	975.00	887.92	39.59	5.11	4.46
	LVOLC	801.00	915.00	848.22	25.57	3.30	3.01
	BCRGR	2.00	6.00	2.87	1.00	0.13	34.86

VAR=WA7188

N Obs	Variable	Minimum	Maximum	Mean	Std Dev	Std Error	CV
59	FYELD	71.50	73.90	72.62	0.53	0.07	0.73
	HSCOR	90.50	96.20	93.03	1.09	0.04	1.17
	FFRD	7.70	9.40	8.33	0.33	0.04	3.96
	CODI	8.77	9.32	9.04	0.12	0.02	1.34
	CODIC	8.73	9.27	8.97	0.13	0.02	1.44
	BABSC	56.50	58.90	57.77	0.63	0.08	1.09
	LVOL	725.00	860.00	798.90	28.38	3.69	3.55
	LVOLC	767.00	896.00	838.97	26.40	3.44	3.15
	BCRGR	3.00	6.00	3.92	0.86	0.11	21.88

It is apparent that WA7187 is the most promising selection for overall baking quality. It has the best water absorption, cookie diameter, loaf volume, and bread crumb scores. WA7186 has a better cookie spread than WA7188, but poor loaf volume. See pages 7-9 for SAS Student Residual (t) for cookie diameter (CODI) and loaf volume (LVOL) and a list of bread crumb scores. These were used to identify the lines with both good cookie and bread baking properties.





## Student Residuals (t) for WA7186

LABNUM	SRESTOT	SRESCODI	SRESLVOL	BCRGR
861098	-0.64143	-1.41001	0.76858	4
861099	-1.50353	-1.32402	-0.17952	4
861100	1.19629	0.41310	0.78319	4
861101	0.12805	0.07002	0.05802	4
861102	0.04745	0.46662	-0.41918	3
861103	0.35525	0.55338	-0.19813	4
861104	1.28372	0.26811	1.01562	3
861105	-0.97780	-0.07038	-0.90741	3
861106	-0.71065	0.44856	-1.15921	4
861107	-0.52871	-0.34053	-0.18818	4
861108	-0.13507	0.07452	-0.20958	4
861109	1.14169	0.84194	0.29975	4
861110	-3.07540	-1.19719	-1.87822	3
861111	1.59738	1.54413	0.05325	5
861112	1.71058	1.43612	0.27446	3
861113	1.79984	2.22946	-0.42962	4
861114	1.57164	1.50369	0.06795	3
861115	-0.95030	-1.26182	0.31152	5
861116	-0.58858	-0.89392	0.30534	4
861117	2.16755	0.42147	1.74608	4
861118	-1.86051	0.25914	-2.11965	5
861119	-1.54659	-0.35918	-1.18741	2
861120	0.01356	-0.29179	0.30534	2
861121	3.44657	1.68666	1.75992	3
861122	2.23601	1.45846	0.77755	2
861123	1.60891	-0.63586	2.24477	4
861124	-0.84664	-1.15198	0.30534	3
861125	-1.01450	-0.57996	-0.43454	3
861126	0.08652	0.51613	-0.42962	2
861127	3.17407	1.84099	1.33308	2
861128	-0.45590	0.45152	-0.90741	4
861129	0.02143	-1.49606	1.51749	3
861130	0.28400	-0.01574	0.29975	2
861131	2.14066	0.13831	2.00235	2
861132	1.27946	-0.46135	1.74081	2
861133	-1.11281	-0.68319	-0.42962	7
861134	-2.98523	-1.34824	-1.63699	3
861135	-0.89528	-1.69393	0.79864	2
861136	-0.22752	-0.05191	-0.17561	3
861137	-2.83613	-2.05082	-0.78532	4
861138	0.17219	0.60180	-0.42962	4
861139	-2.33914	-1.17993	-1.15921	2
861140	-0.75018	0.68169	-1.43187	2
861141	-0.88420	-0.18570	-0.69850	2
861142	2.38016	2.10350	0.27666	2
861143	0.62970	0.35880	0.27090	5
861144	0.17771	-0.83709	1.01480	4
861145	1.80782	0.55338	1.25445	2
861146	-1.15848	-1.21651	0.05802	4
861147	-0.63267	-0.92280	0.29013	2
861148	0.56093	0.74045	-0.17952	3
861149	-1.32229	0.07002	-1.39231	3
861150	0.25081	-0.51849	0.76930	4
861151	-0.27463	-0.82971	0.55508	4
861152	-2.16830	-0.29179	-1.87652	4
861153	0.09958	-0.20577	0.30534	3
861154	0.44475	1.11580	-0.67105	5
861155	-1.17037	0.46662	-1.63699	3
861156	1.11268	1.30566	-0.19298	5
861157	-1.36277	-1.16465	-0.19813	5



## Student Residuals (t) for WA7187

LABNUM	SRESTOT	SRESCODI	SRESLVOL	BCRGR
860979	-0.41422	-0.47360	0.05938	3
860980	-1.22830	-0.66682	-0.56147	3
860981	-0.03112	0.21127	-0.24239	3
860982	0.66347	0.50378	0.15969	3
860983	0.22419	-0.54598	0.77017	2
860984	2.50309	1.93460	0.56849	2
860985	-0.05547	0.78547	-0.84095	2
860986	0.47817	1.02874	-0.55058	3
860987	0.30251	-0.46766	0.77017	2
860988	-2.10171	-0.96213	-1.13958	2
860989	-1.88267	-1.73873	-0.14394	2
860990	0.89055	-0.29113	1.18168	2
860991	-0.45017	0.08201	-0.53218	2
860992	0.06432	0.39518	-0.33086	3
860993	-0.65377	1.39002	-2.04379	2
860994	2.06289	-0.44111	2.50400	3
860995	0.69062	-0.38775	1.07837	2
860996	0.07148	-0.39453	0.46601	2
860997	-0.74440	-1.84658	1.10218	2
860998	3.81035	1.93249	1.87787	2
860999	0.24659	0.08059	0.16600	2
861000	3.07440	0.97499	2.09941	3
861001	0.87104	-0.80566	1.67670	2
861002	1.73036	1.35910	0.37126	3
861003	-1.70287	-1.17069	-0.53218	3
861004	0.42407	0.75899	-0.33493	3
861005	-0.66003	-0.72743	0.06740	3
861006	-0.52548	-0.99240	0.46692	2
861007	-1.01289	-0.86895	-0.14394	5
861008	-1.69596	-0.25727	-1.43869	4
861009	0.30114	0.83723	-0.53609	4
861010	-2.48847	-1.65349	-0.83498	3
861011	0.13144	0.86494	-0.73350	2
861012	-3.20322	-0.92560	-2.27762	4
861013	-2.45018	-1.40484	-1.04533	2
861014	-0.24654	-1.11859	0.87205	2
861015	-0.50612	-0.77922	0.27310	3
861016	0.26648	0.49864	-0.23216	2
861017	-0.52589	0.21137	-0.73726	2
861018	1.63004	2.05883	-0.42879	2
861019	-0.71311	-0.33450	-0.37861	6
861020	-0.90871	0.63006	-1.53877	5
861021	0.21169	-0.25803	0.46972	3
861022	1.45498	1.49036	-0.03539	4
861023	0.76056	1.29410	-0.53354	3
861024	0.08352	0.61434	-0.53082	3
861025	-1.35393	-0.33450	-1.01944	6
861026	0.91579	0.44606	0.46972	3
861027	-0.88450	-0.04892	-0.83558	2
861028	-0.53112	0.85319	-1.38431	3
861029	2.30451	0.91936	1.38515	2
861030	1.49461	1.11100	0.38361	2
861031	-0.21937	0.62943	-0.84880	4
861032	1.65253	-0.15276	1.80530	3
861033	-0.62029	-2.61054	1.99025	4
861034	-1.31501	-1.49552	0.18051	4
861035	-0.17788	-0.44298	0.26510	3
861036	-0.33091	-0.20509	-0.12582	2
861037	-0.10344	0.63006	-0.73350	3
861038	0.21957	0.24216	-0.02259	4



## Student Residuals (t) for WA7188

LABNUM	SRESTOT	SRESCODI	SRESLVOL	BCRGR
861039	1.40592	1.05614	0.34978	4
861040	-3.82070	-0.96090	-2.85980	4
861041	-1.35838	0.15223	-1.51060	4
861042	-0.35969	0.53235	-0.89204	4
861043	-1.49987	-0.21427	-1.28559	3
861044	-0.92878	0.94714	-1.87592	3
861045	-2.21807	-0.92487	-1.29320	3
861046	-1.59794	-0.26435	-1.33359	4
861047	-2.68952	-0.66248	-2.02705	4
861048	0.69912	0.16734	0.53177	3
861049	-2.70873	-1.17810	-1.53063	4
861050	-1.02336	-0.13131	-0.89204	4
861051	0.93463	1.48008	-0.54544	4
861052	0.35608	1.44489	-1.08882	4
861053	-1.06138	0.13436	-1.19574	4
861054	2.14749	1.36420	0.78328	4
861055	-2.12727	-1.73140	-0.39587	4
861056	3.66394	2.29599	1.36794	5
861057	2.80253	0.49927	2.30326	3
861058	-0.38644	-1.31619	0.92975	3
861059	1.75368	1.31394	0.43974	4
861060	1.56749	0.18480	1.38269	3
861061	-0.22832	0.31712	-0.54544	3
861062	0.42541	-1.04386	1.46927	4
861063	1.98835	0.75634	1.23201	6
861064	-1.47154	-0.87294	-0.59861	5
861065	1.26139	0.79979	0.46160	3
861066	0.90374	0.55396	0.34978	3
861067	-1.44051	-1.34599	-0.09451	3
861068	2.11685	1.48008	0.63678	3
861069	-0.08710	-0.48171	0.39461	4
861070	1.25105	1.01919	0.23186	4
861071	-0.66507	-0.61780	-0.04728	4
861072	0.67379	0.23405	0.43974	4
861073	-0.00862	-0.29723	0.28861	3
861074	-0.89890	-0.89827	-0.00063	6
861075	-0.23493	-1.16037	0.92544	4
861076	1.30744	1.06474	0.24270	6
861077	-0.29997	-1.37569	1.07572	6
861078	-0.00722	-0.95259	0.94536	6
861079	1.31872	1.03010	0.28861	3
861080	-0.66909	-0.41353	-0.25556	4
861081	0.64530	-0.21909	0.86439	4
861082	0.42244	-0.56502	0.98746	4
861083	0.84786	-0.33955	1.18741	4
861084	0.40788	-0.63593	1.04381	5
861085	-2.29216	-2.46925	0.17709	4
861086	-2.26963	-1.19218	-1.07746	3
861087	2.03407	2.04658	-0.01250	3
861088	-0.51599	-0.21427	-0.30171	4
861089	1.32638	0.55006	0.77632	4
861090	-0.24455	-0.57950	0.33494	3
861091	0.48079	1.43636	-0.95557	4
861092	-1.29414	-0.89827	-0.39587	3
861093	2.23418	1.15865	1.07554	3
861094	-0.18409	0.28836	-0.47245	4
861095	0.25721	0.46692	-0.20971	5
861096	-0.37698	-0.36448	-0.01250	4
861097	-0.41763	-0.64948	0.23186	4

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NURSCO 29

MOSCOW, ID

ZHANG/LIU

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						<u>1/</u>		<u>1/</u>	<u>3/</u>		
8611158	FENG KANG #2 -1-	C1017596	HWW	64.4	70.7	0.28	91.5	10.2	56.8	2M	57.7
8611159	FENG KANG #2 -2-		HWW	64.4	70.5	0.28	91.6	10.8	56.6	2M	58.1
8611160	FENG KANG #2 -3-		HWW	64.8	70.7	0.28	91.3	10.9	56.2	2M	57.8
8611161	FENG KANG #2 -4-		HWW	64.8	71.2	0.27	92.4	11.1	57.0	2M	58.3
8611162	STEPHENS -1-	C1017419	SWW	60.0	73.1	0.39	89.5	8.3	54.2	2L	58.7
8611163	STEPHENS -2-		SWW	59.2	71.5	0.38	87.6	9.0	52.5	2L	60.2
8611164	STEPHENS -3-		SWW	58.4	72.1	0.39	87.9	9.0	52.0	2L	58.7
8611165	STEPHENS -4-		SWW	59.2	72.2	0.38	89.1	8.5	52.8	2L	60.0
8611166	DAWS -1-	C1017909	SWW	62.0	71.7	0.38	88.2	8.3	52.8	3L	
8611167	DAWS -2-		SWW	62.4	71.6	0.37	88.7	7.8	52.7	3L	
8611168	DAWS -3-		SWW	62.0	71.1	0.38	87.1	8.1	52.9	3L	
8611169	DAWS -4-		SWW	62.4	70.8	0.38	87.2	8.1	54.0	3L	
8611170	LEWJAIN -1-	C1017909	SWW	62.4	71.1	0.36	88.8	8.4	55.7	3M	
8611171	LEWJAIN -2-		SWW	62.4	70.7	0.36	88.3	8.3	55.5	3M	
8611172	LEWJAIN -3-		SWW	62.4	70.6	0.36	88.0	8.8	55.8	3M	
8611173	LEWJAIN -4-		SWW	62.4	70.3	0.36	87.8	8.2	56.6	3M	
8611174	ID0080-855 -1-	C1014563	HWW	63.6	68.4	0.39	83.4	9.0	58.1	4M	
8611175	ID0080-855 -2-		HWW	63.2	68.1	0.39	83.0	8.6	60.4	4M	
8611176	ID0080-855 -3-		HWW	63.6	68.6	0.39	83.8	8.7	59.0	4M	
8611177	ID0080-855 -4-		HWW	63.2	67.4	0.40	82.1	8.3	60.4	4L	
8611178	YAMHILL -1-	C1014563	SWW	58.4	72.4	0.38	88.8	9.1	55.3	2L	
8611179	YAMHILL -2-		SWW	58.4	72.8	0.38	89.9	8.8	54.2	2L	
8611180	YAMHILL -3-		SWW	59.2	72.8	0.38	89.7	8.5	53.1	2L	
8611181	YAMHILL -4-		SWW	59.2	72.7	0.38	89.6	8.7	53.3	2L	

1/ Observed Values Corrected to 14% Moisture Basis.5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture Corrected to 9% Protein.6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 9% Protein.





NURSCO 29

MOSCOW, ID

ZHANG/LIU

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				3/			4/			4/	
861158	FENG KANG #2 -1-		HWW	56.5	1.1	700	626	8	8.76	8.86	VP-MTIME, LVOL&BCRGR
861159	FENG KANG #2 -2-		HWW	56.3	1.2	705	593	8	8.57	8.72	VP-MTIME, LVOL&BCRGR
861160	FENG KANG #2 -3-		HWW	55.9	1.2	700	582	8	8.79	8.94	VP-MTIME, LVOL&BCRGR
861161	FENG KANG #2 -4-		HWW	56.2	1.1	705	575	9	8.70	8.87	VP-MTIME, LVOL&BCRGR
861162	STEPHENS -1-	C1017596	SWW	59.4	2.8	660	702	9	9.07	9.00	
861163	STEPHENS -2-	C1017596	SWW	60.2	3.2	660	660	8	9.00	9.00	
861164	STEPHENS -3-	C1017596	SWW	58.7	3.1	640	640	8	9.20	9.20	
861165	STEPHENS -4-	C1017596	SWW	60.5	3.2	655	685	9	9.24	9.18	
861166	DAWS -1-	C1017419	SWW						8.91	8.84	
861167	DAWS -2-	C1017419	SWW						8.99	8.86	
861168	DAWS -3-	C1017419	SWW						8.89	8.79	
861169	DAWS -4-	C1017419	SWW						9.04	8.94	
861170	LEWJAIN -1-	C1017909	SWW						9.44	9.37	
861171	LEWJAIN -2-	C1017909	SWW						9.20	9.12	
861172	LEWJAIN -3-	C1017909	SWW						9.51	9.49	
861173	LEWJAIN -4-	C1017909	SWW						9.51	9.42	
861174	ID0080-855 -1-		HWW						8.41	8.41	(Hard) Low Protein
861175	ID0080-855 -2-		HWW						8.25	8.22	(Hard) Low Protein
861176	ID0080-855 -3-		HWW						8.34	8.31	(Hard) Low Protein
861177	ID0080-855 -4-		HWW						8.44	8.38	(Hard) Low Protein
861178	YAMHILL -1-	C1014563	SWW						9.17	9.19	
861179	YAMHILL -2-	C1014563	SWW						9.12	9.10	
861180	YAMHILL -3-	C1014563	SWW						9.30	9.24	
861181	YAMHILL -4-	C1014563	SWW						9.45	9.42	

COMMENTS: In cooperation with Visiting Scientist, Professor Zhang and Dr. C.T. Liu, Feng Kang is not acceptable for bread making and is questionable for cookie quality. ID 0080-855 is distinctly poor in flour yield and cookie quality. It was too low in protein for bread trials.

VP = Very Poor



NURSCO 30

TULELAKE, CA

QUALSET/LEVI

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
861182	YECORA ROJO (EXP.6106) C1017414	6106/1	HRS	63.4	70.7	0.39	86.0	12.7	62.6	2H
861183	ANZA C1015284	6106/2	HRS	64.2	71.5	0.40	86.3	9.7	59.8	2M
861184		6106/3	HRS	63.1	68.3	0.39	83.5	12.8	62.4	2H
861185		6106/4	HRS	63.3	70.7	0.41	84.9	10.2	63.8	2H
861186		6106/5	HRS	64.0	72.6	0.39	87.7	10.7	62.8	2H
861187		6106/6	HRS	63.0	68.6	0.39	83.5	13.5	61.3	1H
861188		6106/7	HRS	63.5	68.8	0.35	86.0	12.6	61.4	2H
861189		6/6106/8	HRS	62.4	70.2	0.38	85.9	12.7	61.0	2H
861190		6/6106/9	HRS	63.6	71.8	0.36	88.3	11.7	63.4	2H
861191		6/6106/10	HRS	63.1	70.3	0.37	86.4	13.1	63.3	2H
861192		6106/11	HRS	65.1	70.8	0.40	85.4	10.7	61.3	2M
861193		6106/12	HRS	64.4	68.5	0.35	85.9	12.2	61.1	2H
861194		6106/13	HRS	64.6	72.1	0.38	87.8	9.2	59.6	1M
861195		6106/14	HRS	64.0	68.5	0.41	82.4	10.9	60.3	2M
861196		6106/15	HRS	64.6	71.2	0.40	85.9	9.7	61.6	2M
861197		5/6106/16	HRS	64.4	72.0	0.41	86.2	11.5	64.2	5H
861198		6106/17	HRS	62.6	66.5	0.38	82.2	11.2	62.4	2H
861199	YECORA ROJO (EXP.6105) C1017414	6105/1	HRS	63.2	69.2	0.38	84.7	12.9	62.8	2H
861200	ANZA C1015284	6105/2	HRS	63.8	70.4	0.39	85.4	9.6	60.2	1M
861201	EXP.L	6/6105/16	HRS	63.7	70.9	0.36	87.5	12.3	63.0	2H
861202	EXP.T	6105/20	HRW	62.3	67.0	0.36	83.7	9.9	62.9	3M
861203	EXP.N	6105/24	HRW	64.0	69.8	0.37	86.1	8.9	60.8	3M

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 11% Protein.



NURSCO 30

TULELAKE, CA

QUALSET/LEVI

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861182	YECORA ROJO (EXP.6106) C1017414	6106/1	HRS	66.0	64.3	2.1	955	850	2	
861183	ANZA C1015284	6106/2	HRS	60.2	61.5	1.2	635	716	9	
861184		6106/3	HRS	65.4	63.6	1.8	910	798	3	Q-FYELD,MTIME&BCRGR
861185		6106/4	HRS	64.2	65.0	1.8	865	915	6	P-MTIME,LVOL&BCRGR
861186		6106/5	HRS	63.2	63.5	1.3	920	939	6	P-MTIME&BCRGR
861187		6106/6	HRS	64.5	62.0	1.1	870	715	8	P-MTIME,LVOL&BCRGR
861188		6106/7	HRS	64.2	62.6	1.7	940	841	3	Q-FYELD,MTIME,BCRGR
861189		6106/8	HRS	63.4	61.7	1.4	965	860	2	Q-MTIME
861190		6106/9	HRS	64.8	64.1	2.0	975	932	3	Q-BCRGR
861191		6106/10	HRS	67.1	65.0	2.3	1015	885	3	Q-BCRGR
861192		6106/11	HRS	61.7	62.0	1.1	780	799	8	P-MTIME,LVOL&BCRGR
861193		6106/12	HRS	64.0	62.8	1.9	915	841	6	P-MTIME,BCRGR
861194		6106/13	HRS	59.5	61.3	1.2	655	767	9	P-MTIME,LVOL&BCRGR
861195		6106/14	HRS	60.9	61.0	1.3	760	766	9	P-MTIME,LVOL&BCRGR
861196		6106/15	HRS	61.0	62.3	1.4	725	806	9	P-MTIME,LVOL&BCRGR
861197		6106/16	HRS	66.4	65.9	3.5	975	944	2	
861198		6106/17	HRS	64.3	64.1	2.0	840	828	8	P-FYELD,LVOL&BCRGR
861199	YECORA ROJO (EXP.6105) C1017414	6105/1	HRS	65.9	64.0	2.5	955	837	3	
861200	ANZA C1015284	6105/2	HRS	59.5	60.9	1.0	645	732	9	
861201	EXP.L	6105/16	HRS	66.0	64.7	2.1	950	869	3	
861202	EXP.T	6105/20	HRW	63.0	64.1	2.2	810	878	6	P-FYELD,LVOL&BCRGR
861203	EXP.N	6105/24	HRW	60.4	62.5	2.3	775	905	5	P-LVOL&BCRGR

COMMENTS: This nursery as a whole had good protein and test weights, but the location/year produced wheats of abnormally short dough mixing properties and loaf volumes as reflected by Yecora Rojo. The footnoted selections are wqual or better in overall quality than Yecora Rojo. See "Remarks" for major deficiencies of the other selections.

Q = Questionable; P = Poor





QUALSET/LEVI

TULELAKE, CA

NURSCO 31

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
861204	CHINESE SPRING 1A	6146/22	HRS	62.8	67.0	0.43	79.9	12.2	61.1	2M
861205	" 1B	6146/57	HRS	61.3	67.2	0.36	83.7	11.2	60.6	1M
861206	" 1D	6146/34	HRS	61.3	67.0	0.35	84.2	11.3	60.5	2M
861207	" 2A	6146/30	HRS	60.9	67.6	0.38	83.0	11.9	56.1	1H
861208	" 2D	6146/6	HRS	60.7	67.7	0.35	84.8	11.0	59.9	2M
861209	" 3A	6146/20	HRS	61.9	65.9	0.34	83.6	11.7	58.6	1H
861210	" 3B	6146/19	HRS	60.3	67.2	0.35	84.2	11.4	59.8	1H
861211	" 3D	6146/18	HRS	60.3	64.6	0.35	81.8	11.5	58.0	2M
861212	" 4A	6146/16	HRS	61.4	70.0	0.37	86.0	12.0	57.7	1H
861213	" 4B	6146/12	HRS	61.8	66.6	0.32	85.4	10.9	57.6	1M
861214	" 4D	6146/4	HRS	60.8	66.4	0.31	85.7	11.8	58.5	1M
861215	" 5A	6146/72	HRS	61.6	65.4	0.33	83.4	11.7	58.0	1M
861216	" 5B	6146/10	HRS	60.5	64.3	0.33	82.5	11.5	57.8	2M
861217	" 5D	6146/28	HRS	61.1	68.1	0.37	84.0	13.0	56.6	1H
861218	" 6A	6146/15	HRS	61.6	65.9	0.32	84.2	11.0	59.4	2M
861219	" 6B	6146/2	HRS	60.7	65.8	0.31	85.1	11.1	57.2	1M
861220	" 6D	6146/13	HRS	62.2	65.4	0.31	84.5	11.5	56.8	1M
861221	" 7A	6146/8	HRS	60.7	66.4	0.43	79.4	11.4	57.6	2M
861222	" 7B	6146/31	HRS	60.2	69.6	0.42	83.3	12.0	57.7	2M
861223	" 7D	6146/27	HRS	62.0	64.3	0.34	82.0	12.1	56.6	1M
861224	Yecora Rojo	6146/1	HRS	62.9	68.7	0.38	84.4	13.1	59.9	3H
861225	Anza	6146/50	HRS	64.3	70.3	0.37	86.6	10.2	59.8	1H
861226	Yecora Rojo	6146/38	HRS	61.5	69.3	0.41	83.5	13.2	61.5	3H
861227	Anza	6146/13	HRS	64.0	71.6	0.39	86.5	9.9	58.5	1H
861228	Anza	6146/42	HRS	63.5	71.2	0.39	86.5	10.3	59.1	1H
861229	Anza	6146/66	HRS	64.4	71.2	0.38	86.9	10.2	58.6	1H
861230	Yecora Rojo	6146/17	HRS	62.4	70.0	0.41	84.2	12.7	62.6	4H
861231	Chinese Spring	6146/23	HRS	61.3	65.0	0.36	81.5	11.6	57.1	1M
861232	Chinese Spring	6146/36	HRS	61.3	65.2	0.32	83.8	11.3	57.6	1M
861233	Anza	6146/29	HRS	63.3	70.9	0.39	86.2	10.1	58.7	1H
861234	Chinese Spring	6146/32	HRS	60.8	64.7	0.33	82.8	11.7	57.3	1M
861235	Yecora Rojo	6146/70	HRS	58.9	67.7	0.44	79.9	13.7	63.5	3H
861236	Yecora Rojo	6146/33	HRS	61.6	68.5	0.40	83.3	13.0	62.9	3H
861237	Yecora Rojo	6146/54	HRS	61.1	67.2	0.39	82.1	13.5	62.7	2H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 31

TULELAKE, CA

QUALSET/LEV1

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
861204	CHINESE SPRING 1A	6146/22	HRS	63.0	62.8	1.2	795	783	Ø-U	8 P-FASH, MTIME, LVOLYBCRG
861205	" 1B	6146/57	HRS	61.5	62.3	1.1	655	705	U <sup>2</sup>	9 P-MTIME, LVOL&BCRG
861206	" 1D	6146/34	HRS	61.5	62.2	1.8	675	718	U	9 P-MTIME, LVOL&BCRG
861207	" 2A	6146/30	HRS	57.7	57.8	1.3	580	586	U <sup>4</sup>	9 P-MTIME, LVOL&BCRG
861208	" 2D	6146/6	HRS	60.6	61.6	1.2	630	692	U <sup>2</sup>	9 P-MTIME, LVOL&BCRG
861209	" 3A	6146/20	HRS	60.0	60.3	1.1	620	639	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861210	" 3B	6146/19	HRS	60.9	61.5	1.3	665	702	U <sup>3</sup>	9 P-MTIME, LVOL&BCRG
861211	" 3D	6146/18	HRS	59.2	59.7	1.0	570	601	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCR
861212	" 4A	6146/16	HRS	59.4	59.4	1.2	575	575	U <sup>3</sup>	9 P-MTIME, LVOL&BCRG
861213	" 4B	6146/12	HRS	58.2	59.3	1.2	570	638	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCR
861214	" 4D	6146/4	HRS	60.0	60.2	1.2	700	712	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCR
861215	" 5A	6146/72	HRS	59.4	59.7	1.2	590	609	U <sup>3</sup>	9 P-FYELD, MTIME, VL&BCR
861216	" 5B	6146/10	HRS	59.0	59.5	1.3	580	611	U <sup>2</sup>	9 P-FYELD, MTIME, LVOL&BCR
861217	" 5D	6146/28	HRS	59.3	58.3	1.2	575	513	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCR
861218	" 6A	6146/15	HRS	60.1	61.1	1.4	610	672	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCR
861219	" 6B	6146/2	HRS	58.0	58.9	1.2	515	571	U <sup>5</sup>	9 P-FYELD, MTIME, LVOL&BCR
861220	" 6D	6146/13	HRS	58.0	58.5	1.1	560	591	U <sup>3</sup>	9 P-FYELD, MTIME, LVOL&BCR
861221	" 7A	6146/8	HRS	58.7	59.3	1.4	655	692	U <sup>2</sup>	9 P-FYELD, MTIME, LVOL&BCR
861222	" 7B	6146/31	HRS	59.4	59.4	1.2	680	680	U <sup>2</sup>	9 P-FYELD, MTIME, LVOL&BCR
861223	" 7D	6146/27	HRS	58.4	58.3	1.1	670	664	U <sup>2</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861224		6146/1	HRS	62.7	61.6	2.1	975	907	S <sup>2</sup>	2
861225		6146/50	HRS	59.7	61.5	1.2	650	762	U <sup>2</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861226		6146/38	HRS	64.4	63.2	2.3	1000	926	S <sup>2</sup>	2
861227		6146/13	HRS	58.1	60.2	1.4	635	765	U <sup>2</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861228		6146/42	HRS	59.1	60.8	1.4	685	790	U	9 P-FYELD, MTIME, LVOL&BCRG
861229		6146/66	HRS	58.5	60.3	1.2	625	737	U <sup>2</sup>	9
861230		6146/17	HRS	65.0	64.3	2.4	985	942	S <sup>4</sup>	2
861231		6146/23	HRS	58.4	58.8	1.2	545	570	U <sup>4</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861232		6146/36	HRS	58.6	59.3	1.1	585	628	U <sup>4</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861233		6146/29	HRS	58.5	60.4	1.2	670	788	U	9 P-FYELD, MTIME, LVOL&BCRG
861234		6146/32	HRS	58.7	59.0	1.1	575	594	U <sup>4</sup>	9 P-FYELD, MTIME, LVOL&BCRG
861235		6146/70	HRS	66.9	65.2	2.4	950	845	S <sup>2</sup>	2
861236		6146/33	HRS	65.6	64.6	2.2	950	888	S <sup>2</sup>	2
861237		6146/54	HRS	65.9	64.4	2.2	965	872	S <sup>2</sup>	2

COMMENTS: Evaluated in cooperation with the Dept. of Agronomy and Range Science, U.S. Davis, CA. All of the Chinese spring substitution lines are short in mixing time, low in loaf volume and heavy crumb textured. However, there is significant difference (LSD - 25cc) in loaf volume between the lines. Best is probably 1A (783 cc LVOLC) and the poorest 5D (513 cc LVOLC). Similarly, there were great degrees of difference in bread crumb structure (BCRGR). Although they all are 9's with the exception of 1A at 8, there were differences. Nine is the end of our scoring range and the computer system used doesn't allow for a 2 digit number, but included beside the numerical score is a U (Unsatisfactory) with a superscript such as U<sup>2</sup> which means it is poor by one more numerical number than a U; U<sup>3</sup> is two numbers poorer, etc. Also, noteworthy is the very short and unusual mixing times for the Yecora Rojo's. These should be 3-4 minutes.



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## WESTERN REGIONAL SPRING WHEAT

ID, MT, OR

NURSCO 32

LABNUM	VARIETY	IDNO	CLASS	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	VISC
					1/		1/	3/		
861238 MCKAY		C1017903	HRS	72.5	0.39	86.0	11.2	60.9	4H	
861239 EDWALL		P1477919	SWS	70.7	0.38		9.2	56.5	2M	130
861240 FEDERATION		C1004737	SWS	67.8	0.41	76.5	10.0	56.4	2M	124
861241 OWENS		C1017904	SWS	69.9	0.38	80.1	9.4	55.4	2M	117
861242 WAVERLY		C1017911	SWS	70.5	0.40	81.4	10.3	55.6	2M	159
861243 PENAWAWA		WA6920	SWS	68.5	0.41	77.2	10.0	55.8	2M	151
861244 HORK/YMH/KA//BB, ORS791432		ORS8413	HWS	73.2	0.45	82.6	11.1	61.8	4H	
861245 K73579/BORAH		6/ WA7075	HRS	71.7	0.43	83.4	12.5	63.9	3H	
861246 ABERDEEN SEL.		6/ ID0271	HRS	71.5	0.39	86.2	13.3	64.0	5H	
861247 ABERDEEN SEL.		6/ ID0266	SWS	71.7	0.36	86.0	9.8	57.1	2M	178
861248 MINIVET SIB.		6/ ORS8415	HRS	70.9	0.45	80.4	13.1	65.6	5H	
861249 K78504/K79129-33//K786645, HF830055		6/ WA7183	SWS	72.1	0.42	83.0	9.8	55.5	2M	99
861250 A71372S-15-3/A71388S-1-2, A76119S-1-3		ID0287	HRS	71.0	0.44	80.0	13.2	65.2	5H	
861251 MRN/TBR66//ID0107/3/ID0153, A78201S-2		5/ ID0290	HRS	70.6	0.35	87.3	12.9	61.0	3H	
861252 BORAH/BORAH/BB S' RESEL.		6/ ID0291	HRS	71.2	0.39	85.4	12.4	63.1	3H	
861253 ABERDEEN SEL. A71531S-A-26-1		5/ ID18151	SWS	70.0	0.38	81.6	10.3	60.0	2M	176
861254 AU/KAL-BB/BON		ORS8417	HRS	70.4	0.48	75.2	11.7	59.8	3H	
861255 TV18A-CM067/HORK S'		ORS8418	HRS	70.7	0.43	79.5	12.6	63.3	4H	
861256 JUP/BJY S'		ORS8425	HRS	69.2	0.43	77.9	13.2	63.9	5H	
861257 TANAGER SIB., CM30697-2		OR8508	HRS	70.0	0.45	79.0	12.8	64.7	2H	
861258 NHS7664/NDM0004, 82-18		WA7328	HRS	74.5	0.45	86.3	12.3	61.9	2H	
861259 K7205078/C114193, S65		6/ WA7326	HRS	73.2	0.45	84.7	12.6	64.8	7H	
861260 K78504/K74129-33//K7806645		WA7176	SWS	70.9	0.43	78.4	9.4	56.5	2M	60
861261 K78504/K74129-33//K7806645, HF64		WA7492	SWS	68.9	0.40	74.1	10.0	56.5	2M	118
861262 WYNNE/ID0125		5/ UT402265	HRS	72.6	0.41	86.0	12.0	62.1	4H	
861263 WYNNE/ID0125		UT402353	HRS	73.4	0.39	88.3	11.9	63.7	6H	
861264 UT74S25-910/ID0125		6/ UT001402	HRS	72.2	0.41	86.0	12.3	63.5	5H	
861265 UT74S25-943/ID0125		6/ UT001012	HRS	72.7	0.39	87.7	12.5	65.2	5H	
861266 UT74S25-910/POWELL		UT001795	HRS	68.4	0.39	81.0	12.5	63.8	4H	
861267 UT74S25-943/ID0125		6/ UT418993	HRS	71.3	0.41	84.2	12.9	66.0	6H	
861268 ABERDEEN SEL.		6/ ID0303	HRS	70.4	0.44	81.6	12.7	66.2	6H	
861269 ABERDEEN SEL.		ID0305	HRS	68.7	0.41	80.3	13.4	66.6	5H	
861270 ABERDEEN SEL.		5/ ID0312	SWS	71.7	0.38	83.2	9.4	57.2	2M	119
861271 ABERDEEN SEL.		ID0315	SWS	72.8	0.41	82.4	10.1	57.2	2M	163
861272 ABERDEEN SEL.		5/ ID0319	SWS	72.3	0.40	83.1	9.4	56.3	2M	112

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





ID, MT, OR

NURSCO 32

LABNUM	VARIETY	IDNO	CLASS	VISCC	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO
						3/				
861238	MCKAY	C1017903	HRS	185	8.81	8.61	1230	80.0	390	77
861239	EDWALL	P1477919	SWS	148	8.77	8.66	1245	80.0	404	80
861240	FEDERATION	C1004737	SWS	159	8.94	8.76	1245	81.0	395	78
861241	OWENS	C1017904	SWS	180	8.69	8.61	1135	72.0	366	73
861242	WAVERLY	C1017911	SWS							
861243	PENAWAWA	WA6920	SWS	181	8.76	8.65	1285	92.0	367	79
861244	HORK/YMH/KA//BB, ORS791432	ORS8413	HWS							
861245	K73579/BORAH	WA7075	HRS							
861246	ABERDEEN SEL.	ID0271	HRS							
861247	ABERDEEN SEL.	ID0266	SWS	223	8.67	8.54	1250	79.0	363	79
861248	MINIVET SIB.	ORS8415	HRS							
861249	K78504/K79129-33//K786645, HF830055	WA7183	SWS	123	8.79	8.66	1210	77.0	384	78
861250	A71372S-15-3/A71388S-1-2,A76119S-1-3	ID0287	HRS							
861251	MRN/TBR66//ID0107/3/ID0153,A78201S-2	ID0290	HRS							
861252	BORAH/BORAH/BB S' RESEL.	ID0291	HRS							
861253	ABERDEEN SEL. A71531S-A-26-1	ID18151	SWS	199	8.85	8.77	1275	80.0	362	68
861254	AU/KAL-BB/BON	ORS8417	HRS							
861255	TV18A-CM067/HORK S'	ORS8418	HRS							
861256	JUP/BJY S'	ORS8425	HRS							
861257	TANAGER SIB., CM30697-2	OR8508	HRS							
861258	NHS7664/NDM0004, 82-18	WA7328	HRS							
861259	K7205078/C114193, S65	WA7326	HRS							
861260	K78504/K74129-33//K7806645	WA7176	SWS	81	9.02	8.85	1240	79.0	371	77
861261	K78504/K74129-33//K7806645, HF64	WA7492	SWS	141	8.62	8.51	1215	80.0	372	78
861262	WYNNE/ID0125	UT402265	HRS							
861263	WYNNE/ID0125	UT402353	HRS							
861264	UT74S25-910/ID0125	UT001402	HRS							
861265	UT74S25-943/ID0125	UT001012	HRS							
861266	UT74S25-910/POWELL	UT001795	HRS							
861267	UT74S25-943/ID0125	UT418993	HRS							
861268	ABERDEEN SEL.	ID0303	HRS							
861269	ABERDEEN SEL.	ID0305	HRS							
861270	ABERDEEN SEL.	ID0312	SWS	162	8.75	8.57	1255	82.0	374	78
861271	ABERDEEN SEL.	ID0315	SWS	192	8.32	8.23	1175	75.0	372	78
861272	ABERDEEN SEL.	ID0319	SWS	152	9.15	8.97	1245	81.0	367	73





USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## WESTERN REGIONAL SPRING WHEAT

NURSCO 32

ID, MT, OR

LABNUM	VARIETY	IDNO	CLASS	FABS	FPEAK	FSTAB	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
								3/			4/		
861238 MCKAY		C1017903	HRS	61.7	6.3	9.6	62.8	62.6	3.5	960	948		4
861239 EDWALL		P1477919	SWS										
861240 FEDERATION		C1004737	SWS										
861241 OWENS		C1017904	SWS										
861242 WAVERLY		C1017911	SWS										
861243 PENAWAWA		WA6920	SWS										
861244 HORK/YMH/KA//BB, ORS791432		ORS8413	HWS	68.5	6.4	6.2	64.6	64.5	3.4	840	834		6 P-LVOL&BCRGR
861245 K73579/BORAH		WA7075	HRS	68.4	7.5	6.8	65.1	63.6	2.8	965	872		3
861246 ABERDEEN SEL.		ID0271	HRS	66.8	10.0	21.4	68.0	65.7	4.4	1000	857		3
861247 ABERDEEN SEL.		ID0266	SWS										
861248 MINIVET SIB.		ORS8415	HRS	68.0	8.9	18.0	69.4	67.3	3.7	1025	895		4 Q-LVOL&BCRGR
861249 K78504/K79129-33//K786645, HF830055		WA7183	SWS										
861250 A71372S-15-3/A71388S-1-2, A76119S-1-3		ID0287	HRS	70.2	8.7	18.4	69.1	66.9	4.0	950	814		3 P-LVOL
861251 MRN/TBR66//ID0107/3/ID0153, A78201S-2		ID0290	HRS	65.7	6.7	10.2	64.6	62.7	2.6	1060	942		2
861252 BORAH/BORAH/BB S' RESEL.		ID0291	HRS	66.7	6.4	9.6	66.2	64.8	3.0	990	903		2
861253 ABERDEEN SEL. A71531S-A-26-1		ID18151	SWS										Q-NOSCO
861254 AU/KAL-BB/BON		ORS8417	HRS	68.8	7.5	4.6	62.2	61.5	2.8	850	807		6 Q-MSCOR P-LVOL&BCRGR
861255 TV18A-CM067/HORK S'		ORS8418	HRS	71.3	6.9	9.6	66.6	65.0	3.0	975	876		4 Q-MSCOR, LVOL&BCRGR
861256 JUP/BJY S'		ORS8425	HRS	68.5	13.3	27.3	67.8	65.6	3.9	935	799		4 P-FYELD, LVOL Q-BCRGR
861257 Tanager SIB., CM30697-2		OR8508	HRS	70.7	6.3	7.4	68.2	66.4	2.2	955	843		3 P-MTIME Q-MSCOR&BCRGR
861258 NHS7664/NDM0004, 82-18		WA7328	HRS	66.1	5.2	6.5	64.9	63.6	2.6	940	859		5 P-BCRGR
861259 K7205078/C114193, S65		WA7326	HRS	64.4	16.0	42.4	68.1	66.5	7.3	995	896		3
861260 K78504/K74129-33//K7806645		WA7176	SWS										Q-MILLING
861261 K78504/K74129-33//K7806645, HF64		WA7492	SWS										P-FYELD Q-CODI
861262 WYNNE/ID0125		UT402265	HRS	66.3	8.0	17.7	64.8	63.8	2.9	1015	953		2
861263 WYNNE/ID0125		UT402353	HRS	65.3	10.3	32.8	66.3	65.4	5.1	865	809		4 P-LVOL&BCRGR
861264 UT74S25-910/ID0125		UT001402	HRS	65.3	10.7	23.8	66.5	65.2	4.3	965	884		2
861265 UT74S25-943/ID0125		UT001012	HRS	65.9	7.5	18.5	68.4	66.9	3.9	1060	967		3
861266 UT74S25-910/POWELL		UT001795	HRS	65.5	6.3	12.4	67.0	65.5	3.5	1055	962		4Q-FYELD&BCRGR
861267 UT74S25-943/ID0125		UT418993	HRS	67.4	10.0	26.2	69.6	67.7	6.4	985	867		1
861268 ABERDEEN SEL.		ID0303	HRS	69.1	17.5	23.8	69.6	67.9	5.1	1010	905		2 Q-P-FYELD
861269 ABERDEEN SEL.		ID0305	HRS	73.5	15.6	21.6	70.7	68.3	3.4	1090	941		2
861270 ABERDEEN SEL.		ID0312	SWS										P-CODI
861271 ABERDEEN SEL.		ID0315	SWS										
861272 ABERDEEN SEL.		ID0319	SWS										

COMMENTS: The following composites were made to provide samples with the most optimum protein level for both the soft and hard selections:

Soft wheats - Kalispell, MT (2 parts), Twin Falls, ID (1 part), and Corvallis, OR (1 part). Hard wheats were equal amounts from Bozeman, MT, Twin Falls and Teton, ID, and Ontario and Corvallis, OR. See "Remarks" for deficiencies of selections not footnoted as promising.

P = Poor; Q = Questionable



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WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

WESTERN REGIONAL HARD RED WINTER

NURSCO 33

ID, MT, OR

LABNUM	VARIETY	IDNO	CLASS	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	FABS	FPEAK
861273 KHARKOF		C1001442	HRW	69.1	0.41	81.1	12.6	62.2	2H	68.1	4.3
861274 WANSER		C1013844	HRW	71.7	0.37	86.0	11.4	62.6	4H	66.7	9.2
861275 BATUM		P1495013	HRW	70.3	0.39	83.5	11.7	63.3	2H	68.6	5.0
861276 ANDREW		WA6820	HRW	70.0	0.38	82.6	11.3	62.0	4H	65.0	7.3
861277 HNL//C114106/CLM//MC		6/ ID0281	HRW	72.5	0.39	87.2	11.4	64.4	5H	67.6	9.4
861278 PROBSTORFER-EXTREM/T0866		6/ ORCR8313	HRW	71.2	0.41	84.1	10.7	62.6	5H	65.0	8.8
861279 7C/KAVKAZ//NORD		O1730875	SRW	66.4	0.37	78.0	10.8	60.7	2M	65.5	2.4
861280 OR-ID SEL. F60213-76		O1602137	HRW	70.0	0.40	81.7	11.5	60.0	1H	69.1	4.0
861281 A68203W-E-1-3-3/A68203 W-1-6-1		ID0297	HRW	73.6	0.39	88.3	11.6	62.4	3H	68.1	7.0
861282 21T65 OR 2CNN OR 2MC/C114107 OR C114106/		ID0298 6/	HRW	73.3	0.39	88.0	11.3	63.6	5H	65.6	14.0
861283 SNOWMOLD TOLERANT BULK SEL.		ID0299	HRW	69.7	0.43	80.4	11.9	60.4	1H	68.9	3.0
861284 ARBON/3/DM/CLM//BURT/PI178383		6/ ID0300	HRW	72.5	0.39	86.4	11.8	63.2	4H	66.5	7.7
861285 HGL/ID5006/4/11-60-156/C1014107/IT/3/...		ID0301 6/	HRW	71.2	0.41	82.4	11.0	62.4	4H	65.6	7.8
861286 ARBON/3/CN/CLM//BURT/PI178383		ID0302	HRW	70.7	0.40	82.6	11.4	62.7	4H	65.7	8.0
861287 21T65 OR 2CNN OR 2MC/C114107 OR C114106/		ID0284	HRW	72.1	0.38	86.2	11.2	63.1	4H	67.5	7.7
861288 WA5514/ITANA//CERCO, N8201908		6/ WA7269	HRW	74.4	0.39	90.3	11.6	63.3	4H	66.6	12.6
861289 REA SL.62/ID92, N8202503		WA7270	HRW	72.8	0.43	84.8	11.1	63.6	4H	67.3	11.3
861290 MARNE DESPREZ/COLOTANA//PICH		6/ ORCR8320	HRW	72.6	0.41	85.1	12.1	62.7	4H	67.3	9.2
861291 RGR/3/11-60-157/MC/MRN/4/11-60-156/		ID0331	HRW	71.2	0.40	83.9	12.6	61.8	3H	69.5	6.3
861292 11-60-156/C114107//IT/4/VRN/ANABLA1487		ID0332	HRW	73.6	0.38	88.6	12.0	62.3	4H	69.0	8.0
861293 A75211W-81-1-3T BUCKSKIN/ID0076		ID0333	HRW	68.4	0.42	77.8	11.3	62.4	2H	68.8	6.3
861294 TK/BURT/4/SM6/4/21T/UT175A-53//BDLS		ID0335	HRW	70.5	0.40	82.5	12.0	62.6	3H	70.3	8.3
861295 ATL50/4/R/R/2*CNN/3/4*TK/5/SM4/4/BURT		ID0336	HRW	72.3	0.44	83.1	12.0	63.2	2H	69.6	6.5
861296 A781011W-1 A7257W-71-2-1/A77695W		ID0337	HRW	72.7	0.41	85.9	12.0	63.0	5H	64.8	10.3
861297 S64/11-60-155/HGL/3/WRR//KO/PI178383		6/ ID0338	HRW	72.2	0.41	84.2	11.7	64.4	5H	67.9	10.2
861298 UD92/N7403301, N8303301, N8308502		WA7429	HRW	73.3	0.41	86.8	11.0	63.4	3H	68.4	6.2
861299 ID114/WA7001, N8308601		WA7430	HRW	73.6	0.38	88.5	10.6	65.4	3H	69.1	5.7
861300 HANSEL/ARBON		6/ UT146118	HRW	71.6	0.36	86.6	11.4	64.0	4H	68.5	7.7
861301 MARTONVASARI 3/HANSEL		6/ UT152419	HRW	70.0	0.38	83.6	12.7	65.3	5H	71.4	13.5
861302 HANSEL//FLEX/UT886-34		6/ UT154580	HRW	69.6	0.37	83.5	11.4	63.8	5H	68.0	11.1
861303 PMF//CNO S/GLL		6/ ORCR8414	HRW	71.3	0.38	85.3	11.8	64.1	4H	68.5	8.0
861304 F60213-76, MEX CB78241		OR8315	HRW	69.9	0.39	82.7	12.0	58.6	1H	70.5	2.0
861305 UT755079/CREST56//TX 65A1268		6/ MT79121	HRW	69.2	0.39	81.3	10.8	64.3	8M	68.0	13.2
861306 UT755079/CREST56//TX 65A1268		6/ MT79123	HRW	69.1	0.37	82.4	10.9	64.7	5H	65.8	12.7
861307 UT755079/CREST56//TX 65A1268		6/ MT79125	HRW	69.8	0.34	85.2	11.4	63.7	4H	68.9	8.7

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





ID, MT, OR

LABNUM	VARIETY	IDNO	CLASS	FSTAB	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
						3/			4/		
861273	KHARKOF	C1001442	HRW	7.5	64.5	63.9	2.3	925	891	2	
861274	WANSER	C1013844	HRW	15.0	63.7	64.3	3.7	940	981	2	
861275	BATUM	P1495013	HRW	8.7	64.7	65.0	2.2	945	964	3	
861276	ANDREW	WA6820	HRW	17.1	63.0	63.7	3.4	905	948	2	
861277	HNL//C114106/CLM//MC	ID0281	HRW	16.6	65.5	66.1	4.5	935	972	2	
861278	PROBSTORFER-EXTREM/TOB66	ORCR8313	HRW	33.9	63.0	64.3	4.5	910	991	2	
861279	7C/KAVKAZ//NORD	O1730875	SRW	1.9	61.2	62.4	1.4	765	839	8 VP-FYELD, LVOL&BCRGR	
861280	OR-ID SEL. F60213-76	O1602137	HRW	2.2	61.2	61.7	1.3	725	756	9 VP-MTIME, LVOL&BCRGR	
861281	A68203W-E-1-3-3/A68203 W-1-6-1	ID0297	HRW	10.2	63.7	64.1	2.4	815	840	8 P-LVOL&BCRGR	
861282	21T65 OR 2CNN OR 2MC/C114107 OR C114106/	ID0298	HRW	23.2	64.6	65.3	3.7	890	933	2	
861283	SNOWMOLD TOLERANT BULK SEL.	ID0299	HRW	3.2	62.0	62.1	1.9	755	761	9 VP-MTIME, LVOL&BCRGR	
861284	ARBON/3/DM/CLM//BURT/P1178383	ID0300	HRW	18.0	64.7	64.9	4.0	955	967	3 Q-BCRGR	
861285	HGL/ID5006/4/11-60-156/C1014107/1T/3/...	ID0301	HRW	12.2	63.1	64.1	3.7	885	947	3 Q-BCRGR	
861286	ARBON/3/CN/CLM//BURT/P1178383	ID0302	HRW	15.8	63.8	64.4	3.5	920	957	4 P-BCRGR	
861287	21T65 OR 2CNN OR 2MC/C114107 OR C114106/	ID0284	HRW	13.0	64.0	64.8	2.6	855	905	4 P-LVOL&BCRGR	
861288	WA5514/ITANA//CERCO, N8201908	WA7269	HRW	24.3	64.6	65.0	4.4	880	905	2 Q-LVOL	
861289	REA SL.62/ID92.N8202503	WA7270	HRW	38.4	64.4	65.3	4.4	860	916	3 Q-LVOL&BCRGR	
861290	MARNE DESPREZ/COLOTANA//PICH	ORCR8320	HRW	23.7	64.5	64.4	3.4	950	944	2	
861291	RGR/3/11-60-157/MC/MRN/4/11-60-156/	ID0331	HRW	7.7	64.1	63.5	2.5	875	838	3 P-LVOL Q-BCRGR	
861292	11-60-156/C114107/1T/4/VRN/ANABLA1487	ID0332	HRW	12.1	64.0	64.0	2.9	820	820	7 P-LVOL&BCRGR	
861293	A75211W-81-1-3T BUCKSKIN/ID0076	ID0333	HRW	6.5	63.4	64.1	2.4	840	883	2 P-FYELD&BCRGR	
861294	TK/BURT/4/SM6/4/21T/UT175A-53//BDLS	ID0335	HRW	9.9	64.3	64.3	2.9	850	850	4 P-LVOL&BCRGR	
861295	ATL50/4/R/R//2*CNN/3/4*TK/5/SM4/4/BURT	ID0336	HRW	8.7	64.9	64.9	2.6	900	900	5 Q-LVOL P-BCRGR	
861296	A781011W-1 A7257W-71-2-1/A77695W	ID0337	HRW	26.5	64.7	64.7	4.2	880	880	3 Q-P-LVOL&BCRGR	
861297	S64/11-60-155/HGL/3/WRR//KO/PI178383	ID0338	HRW	37.6	65.8	66.1	4.5	915	934	2	
861298	UD92/N7403301,N8303301,N8308502	WA7429	HRW	12.7	64.1	65.1	2.8	850	912	5 P-BCRGR	
861299	ID114/WA7001,N8308601	WA7430	HRW	13.4	65.7	67.1	2.9	820	907	5 P-BCRGR	
861300	HANSEL/ARBON	UT146118	HRW	12.8	65.1	65.7	3.6	905	942	3 Q-BCRGR	
861301	MARTONVASARI 3/HANSEL	UT152419	HRW	33.1	68.7	68.0	3.6	975	932	3 Q-BCRGR	
861302	HANSEL//FLEX/UT886-34	UT154580	HRW	27.7	64.9	65.5	4.5	900	937	3 Q-BCRGR	
861303	PMF//CNO S/GLL	ORCR8414	HRW	15.1	66.1	66.3	3.1	990	1002	3 Q-BCRGR	
861304	F60213-76,MEX CB78241	OR8315	HRW	1.7	60.3	60.3	1.2	715	715	9 VP-MTIME, LVOL&BCRGR	
861305	UT755079/CREST56//TX 65A1268	MT79121	HRW	35.5	64.8	66.0	4.5	900	974	2 Q-FYELD	
861306	UT755079/CREST56//TX 65A1268	MT79123	HRW	25.0	65.3	66.4	4.4	885	953	2 Q-FYELD	
861307	UT755079/CREST56//TX 65A1268	MT79125	HRW	12.9	64.8	65.4	3.3	905	942	2 Q-FYELD	

COMMENTS: Equal amounts of seed from the Western Regional HRW Nurseries grown at Kalispell, MT, Aberdeen, ID, and Moro, OR were composited.

Other locations had missing entries or were too low in protein to be useful. A few of the selections identified with footnotes as promising are marginal in loaf volume and/or crumb structure and should be noted if advancement is considered.

VP = Very Poor; P = Poor; Q = Questionable





ID, OR, WA

NURSCO 34

LABNUM	VARIETY	IDNO	CLASS	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	VISC	VISCC
					1/		1/	3/			
861308	KHARKOF	C1001442	HRW	71.6	0.42	83.6	10.1	57.5	4M	177	105
861309	ELGIN	C1011755	CLUB	74.9	0.43	88.3	8.4	47.8	1M	57	51
861310	MORO	C1013740	CLUB	74.0	0.42	86.3	8.4	48.7	2L	72	64
861311	NUGAINES	C1013968	SWM	71.3	0.41	82.4	7.4	52.4	3L	64	79
861312	STEPHENS	C1017596	SWM	73.0	0.40	84.9	7.6	51.4	2L	55	63
861313	TRES	C1017917	CLUB	74.5	0.41	86.5	7.5	47.6	1L	42	49
861314	DUSTY	P1486429	SWM	73.5	0.39	87.2	7.5	50.4	5L	48	57
861315	HYS/YAY//WA4995/3/CERCO, W-1980	6/ OR7996	SWM	70.6	0.37	83.1	7.5	52.2	8L	55	65
861316	7C/CNO//CAL/3/YMH	6/ ORCW8314	SWM	71.7	0.37	84.3	7.0	52.3	3L	45	66
861317	1523/DC DWF//RBS, F1/3/WA5989	ORCW8318	SWM	70.5	0.39	82.3	8.5	52.9	3M	88	76
861318	CERCO/RAEDER, VJ081146	6/ WA7168	SWM	69.5	0.37	81.4	7.4	54.0	4L	55	68
861319	VPM/MOS951//2*OR68007	5/ WA7163	SWM	74.2	0.41	87.6	8.3	53.6	3M	62	57
861320	VPM/MOS421//2*TYEE	5/ WA7166	SWM	73.5	0.38	87.5	8.0	53.6	6L	91	91
861321	ROMANIA, FONDEA 12-71/JUP	01765784	SWM	69.9	0.46	77.4	9.4	52.7	4M	123	85
861322	RDL/SU92//KALIAN/BB	6/ 01754022	SWM	73.7	0.40	86.0	8.3	52.3	4M	81	74
861323	MNIM//KAL/BB	01754989	HWM	69.8	0.48	75.7	8.5	56.6	4M	99	85
861324	V77254, OASIS/WA6362/WA6242, VH083572	6/ WA7216	SWM	71.8	0.44	81.6	7.8	52.5	3M	90	96
861325	VPM/MOS951//2*BRB	5/ ORC217	SWM	73.7	0.41	85.7	8.4	51.1	2M	79	70
861326	TJB841/1543//YMH/63-122-66-2	5/ ORCW8421	SWM	72.8	0.40	85.7	8.6	52.7	3M	81	68
861327	MCD/ROMANIAN//OR7141, K-83	OR8270	SWM	71.1	0.42	80.0	8.6	50.9	2M	60	50
861328	NORTENO/YAMHILL//6720-13	6/ ORCW8416	SWM	72.2	0.41	83.4	9.0	52.3	3M	102	77
861329	T. AESTIVUM/TORIM	6/ ORCW8417	SWM	72.2	0.38	85.4	8.2	52.8	3M	75	70
861330	6720-10//YAMHILL/HYSLOP	6/ ORCW8519	SWM	73.1	0.38	86.3	8.9	52.0	3M	80	62
861331	TJB801-12795/STEPHENS	6/ ORCW8517	SWM	74.1	0.40	87.1	8.9	52.1	2M	87	68
861332	NEELEY/SPN//SPN(A791128W-A-1)	ID0329	SWM	72.1	0.42	82.2	8.7	52.9	3M	72	59
861333	NEELEY/SPN//SPN(A791128W-B-2)	5/ ID0330	SWM	72.5	0.40	83.9	8.2	52.7	2M	60	57
861334	LUKE/BR704434	6/ WA7431	SWM	71.9	0.39	84.3	7.9	53.2	6L	74	77
861335	VPM1/MOS//CERCO/3/LUKE	6/ WA7432	SWM	72.1	0.38	84.5	8.0	54.5	4L	84	84
861336	MARIS HUNTSMAN/VH07521	WA7433	HWM	71.6	0.46	80.1	8.7	53.5	3M	76	62
861337	WA4303/VKG//820/OMAR/1834/P1178383,...	6/ WA7434	SWM	69.1	0.37	81.3	7.3	54.3	4L	78	102
861338	WA4303/PURDUE SEL.//820/OMAR/1834/P1...	6/ WA7435	SWM	70.6	0.39	82.4	8.0	52.8	4L	117	117
861339	WA4303/VKG/WA4303/GENESEE, 85203	WA7436	SWM	67.9	0.40	77.1	7.9	53.9	4L	83	86
861340	PAHA/C113645/2*CH/AE/PN/2*OMAR, 85117	5/ WA7437	SWM	72.6	0.37	86.3	7.5	53.5	3L	79	94
861341	HYSLOP/CERCO, H-308	OR0843	HWM	68.8	0.45	77.3	8.6	56.3	5M	93	78
861342	HYSLOP/CERCO, B-307	OR0842	SWM	70.1	0.46	78.2	7.7	55.5	4L	73	81
861343	HYSLOP/YAYLA//63-112-66-4/3/OR7065, H281	OR0845	SWM	72.0	0.41	83.4	7.7	54.0	4L	74	82

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



ID, OR, WA

NURSCO 34

LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
					4/					
861308	KHARKOF	C1001442	HRW	7.77	7.94	1095	65.0	348	66	
861309	ELGIN	C1011755	CLUB	8.76	8.79	1260	78.0	368	76	
861310	MORO	C1013740	CLUB	9.00	9.04	1280	89.0	353	71	
861311	NUGAINES	C1013968	SWW	8.66	8.59	1230	75.0	329	72	
861312	STEPHENS	C1017596	SWW	8.69	8.64	1180	66.0	336	70	
861313	TRES	C1017917	CLUB	8.74	8.70	1330	88.0	362	78	
861314	DUSTY	P1486429	SWW	9.40	9.34	1295	82.0	320	71	Q-FYELD
861315	HYS/YAY//WA4995/3/CERCO, W-1980	OR7996	SWW	9.05	8.99	1290	82.0	320	71	Q-FYELD
861316	7C/CNO//CAL/3/YMH	ORCW8314	SWW	8.76	8.65	1335	86.0	341	74	
861317	1523/DC DWF//RBS, F1/3/WA5989	ORCW8318	SWW	8.67	8.73	1250	77.0	338	70	Q-FYELD&NOSCO
861318	CERCO/RAEDER, VJ081146	WA7168	SWW	8.99	8.92	1305	86.0	335	74	Q-FYELD
861319	VPM/MOS951//2*OR68007	WA7163	SWW	8.62	8.66	1220	77.0	342	74	
861320	VPM/MOS421//2*TYEE	WA7166	SWW	8.72	8.72	1255	80.0	337	71	
861321	ROMANIA FONDEA 12-71/JUP	O1765784	SWW	8.24	8.39	1115	68.0	337	69	P-MILLING, CODI, SCSOR&NOSCO
861322	RDL/SU92//KALIAN/B8	O1754022	SWW	8.99	9.02	1240	78.0	324	72	
861323	MNI/M//KAL/B8	O1754989	HWW	7.78	7.82	1125	68.0	337	73	P-MILLING, CODI "Hard"
861324	V77254, OASIS/WA6362/WA6242, VH083572	WA7216	SWW	8.74	8.72	1270	81.0	320	70	
861325	VPM/MOS951//2*BRB	WA7217	SWW	8.85	8.89	1320	84.0	359	71	
861326	TJB841/1543//YMH/63-122-66-2	ORCW8421	SWW	8.69	8.75	1230	77.0	337	76	
861327	MCD/ROMANIAN//OR7141, K-83	OR8270	SWW	8.36	8.43	1075	58.0	329	68	P-CODI, CAVOL&SCSOR
861328	NORTENO/YAMHILL//6720-13	ORCW8416	SWW	8.56	8.67	1170	76.0	339	71	
861329	T.AESTIVUM/TORIM	ORCW8417	SWW	8.66	8.68	1245	79.0	340	72	
861330	6720-10//YAMHILL/HYSLOP	ORCW8519	SWW	8.71	8.81	1195	76.0	348	69	Q-P-NOSCO
861331	TJB801-12795/STEPHENS	ORCW8517	SWW	8.66	8.76	1215	75.0	361	70	Q-NOSCO
861332	NEELEY/SPN//SPN(A791128W-A-1)	ID0329	SWW	8.20	8.28	1110	69.0	336	71	P-CODI&CAVOL
861333	NEELEY/SPN//SPN(A791128W-B-2)	ID0330	SWW	8.97	9.00	1325	86.0	349	74	
861334	LUKE/BR704434	WA7431	SWW	8.94	8.93	1280	83.0	337	71	
861335	VPM1/MOS//CERCO/3/LUKE	WA7432	SWW	8.77	8.77	1280	82.0	339	70	
861336	MARIS HUNTSMAN/VH07521	WA7433	HWW	7.94	7.99	1125	71.0	343	70	P-CODI&CAVOL "Hard"
861337	WA4303/VKG//820/OMAR/1834/PI178383,...	WA7434	SWW	8.81	8.74	1265	78.0	328	72	
861338	WA4303/PURDUE SEL.//820/OMAR/1834/PI...	WA7435	SWW	8.66	8.66	1285	83.0	339	71	
861339	WA4303/VKG/WA4303/GENESEE, 85203	WA7436	SWW	8.64	8.63	1290	83.0	329	71	P-FYELD
861340	PAHA/C113645/2*CH/AE/PN/2*OMAR, 85117	WA7437	SWW	8.82	8.77	1270	81.0	349	75	
861341	HYSLOP/CERCO, H-308	OR0843	HWW	7.77	7.82	1030	64.0	334	69	P-FYELD, CODI&CAVOL "Hard"
861342	HYSLOP/CERCO, B-307	OR0842	SWW	7.92	7.89	1030	61.0	337	70	P-CODI&CAVOL
861343	HYSLOP/YAYLA//63-112-66-4/3/OR7065, H281	OR0845	SWW	8.47	8.44	1195	79.0	353	72	Q-CODI

COMMENTS: Samples were prepared for tests by blending equal amounts of seed grown in the Western Regional Soft White Winter Nurseries at Aberdeen, ID, Pendleton and Corvallis, OR, and Pomeroy, WA. Several of the selections (footnoted) have promising overall quality for SWW or club wheats. Others are extremely poor in one or more quality factor (See "Remarks").

P = Poor; Q = Questionable



NURSCO 35

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/ 3/		1/ 3/		
861344	ANZA X CAJEME 71 N1	601-01	HRS	63.3	72.2	0.39	87.2	7.8	58.5	6L
861345	ANZA X CAJEME 71 N1	601-02	HRS	64.0	68.8	0.40	83.5	8.2	61.7	6L
861346	ANZA X CAJEME 71 N1	601-03	HRS	55.3	71.6	0.39	86.8	9.5	60.0	7M
861347	ANZA X CAJEME 71 N1	601-04	HRS	64.0	69.0	0.40	83.7	7.4	59.9	4L
861348	ANZA X CAJEME 71 N1	601-05	HRS	63.2	71.8	0.40	86.4	7.9	59.4	2M
861349	ANZA X CAJEME 71 N1	601-06	HRS	64.3	68.9	0.38	84.5	6.8	60.5	3L
861350	ANZA X CAJEME 71 N1	601-07	HRS	63.5	70.5	0.40	85.3	7.7	59.6	2L
861351	ANZA X CAJEME 71 N1	601-08	HRS	62.9	70.3	0.40	84.7	7.8	60.2	2L
861352	ANZA X CAJEME 71 N1	601-09	HRS	64.9	71.5	0.38	87.3	7.9	60.1	4L
861353	CAJEME 71	601-10	HRS	64.1	69.6	0.40	84.1	7.7	62.1	6L
861354	ANZA X CAJEME 71 N1	601-11	HRS	62.4	68.6	0.39	83.8	6.8	59.5	8L
861355	ANZA X CAJEME 71 N1	601-12	HRS	63.4	72.7	0.45	85.0	7.8	60.4	3L
861356	ANZA X CAJEME 71 N1	601-13	HRS	63.1	72.4	0.39	87.5	8.4	58.6	2L
861357	ANZA X CAJEME 71 N1	601-14	HRS	62.6	70.1	0.37	86.3	6.7	59.5	2L
861358	ANZA X CAJEME 71 N1	601-15	HRS	64.6	71.7	0.38	87.3	9.1	58.3	2M
861359	ANZA X CAJEME 71 N1	601-16	HRS	65.0	70.1	0.35	87.3	8.9	61.4	4M
861360	ANZA X CAJEME 71 N1	601-17	HRS	64.1	71.7	0.39	86.9	8.2	58.2	4L
861361	ANZA X CAJEME 71 N1	601-18	HRS	64.1	69.6	0.40	84.0	8.0	60.0	2L
861362	ANZA X CAJEME 71 N1	601-19	HRS	63.3	68.7	0.40	83.0	7.6	59.3	3L
861363	ANZA (C1015284)	601-20	HRS	64.2	71.9	0.36	88.8	7.8	60.1	2L
861364	ANZA X CAJEME 71 N1	601-21	HRS	62.4	69.6	0.42	83.4	7.2	59.3	3L
861365	ANZA X CAJEME 71 N1	601-22	HRS	64.0	69.2	0.36	85.8	8.3	60.5	6L
861366	ANZA X CAJEME 71 N1	601-23	HRS	62.5	69.6	0.40	84.3	6.4	62.0	3L
861367	ANZA X CAJEME 71 N1	601-24	HRS	63.8	70.9	0.43	83.8	7.3	61.7	3L
861368	ANZA X CAJEME 71 N1	601-25	HRS	62.6	70.9	0.39	86.2	7.7	58.7	2L
861369	ANZA X CAJEME 71 N1	601-26	HRS	63.8	71.4	0.36	88.1	7.9	60.6	6L
861370	ANZA X CAJEME 71 N1	601-27	HRS	62.1	71.0	0.40	85.6	8.4	58.6	3L
861371	ANZA X CAJEME 71 N1	601-28	HRS	64.2	67.8	0.40	82.2	7.2	62.1	6L
861372	ANZA X CAJEME 71 N1	601-29	HRS	62.4	69.8	0.38	85.6	8.1	59.4	6L
861373	YECORA ROJO (C1017414)	601-30	HRS	64.4	68.8	0.38	84.1	7.9	63.5	6L
861374	ANZA X CAJEME 71 N1	601-31	HRS	63.9	69.8	0.40	84.2	9.0	61.2	4M
861375	ANZA X CAJEME 71 N1	601-32	HRS	64.4	68.1	0.39	83.2	7.9	60.4	2L
861376	ANZA X CAJEME 71 N1	601-33	HRS	64.3	69.1	0.40	83.6	6.9	59.1	2L
861377	ANZA X CAJEME 71 N1	601-34	HRS	63.9	67.8	0.41	81.9	6.8	60.5	3L
861378	ANZA X CAJEME 71 N1	601-35	HRS	62.6	69.7	0.40	84.3	7.7	60.1	5L

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 10% Protein.





NURSCO 35

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY		IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
						3/			4/		
861344	ANZA X CAJEME 71	N1	601-01	HRS							
861345	ANZA X CAJEME 71	N1	601-02	HRS							
861346	ANZA X CAJEME 71	N1	601-03	HRS							
861347	ANZA X CAJEME 71	N1	601-04	HRS							
861348	ANZA X CAJEME 71	N1	601-05	HRS							
861349	ANZA X CAJEME 71	N1	601-06	HRS							
861350	ANZA X CAJEME 71	N1	601-07	HRS							
861351	ANZA X CAJEME 71	N1	601-08	HRS							
861352	ANZA X CAJEME 71	N1	601-09	HRS							
861353	CAJEME 71		601-10	HRS							
861354	ANZA X CAJEME 71	N1	601-11	HRS							
861355	ANZA X CAJEME 71	N1	601-12	HRS							
861356	ANZA X CAJEME 71	N1	601-13	HRS							
861357	ANZA X CAJEME 71	N1	601-14	HRS							
861358	ANZA X CAJEME 71	N1	601-15	HRS							
861359	ANZA X CAJEME 71	N1	601-16	HRS							
861360	ANZA X CAJEME 71	N1	601-17	HRS							
861361	ANZA X CAJEME 71	N1	601-18	HRS							
861362	ANZA X CAJEME 71	N1	601-19	HRS							
861363	ANZA (C1015284)		601-20	HRS							
861364	ANZA X CAJEME 71	N1	601-21	HRS							
861365	ANZA X CAJEME 71	N1	601-22	HRS							
861366	ANZA X CAJEME 71	N1	601-23	HRS							
861367	ANZA X CAJEME 71	N1	601-24	HRS							
861368	ANZA X CAJEME 71	N1	601-25	HRS							
861369	ANZA X CAJEME 71	N1	601-26	HRS							
861370	ANZA X CAJEME 71	N1	601-27	HRS							
861371	ANZA X CAJEME 71	N1	601-28	HRS							
861372	ANZA X CAJEME 71	N1	601-29	HRS							
861373	YECORA ROJO (C1017414)		601-30	HRS							
861374	ANZA X CAJEME 71	N1	601-31	HRS							
861375	ANZA X CAJEME 71	N1	601-32	HRS							
861376	ANZA X CAJEME 71	N1	601-33	HRS							
861377	ANZA X CAJEME 71	N1	601-34	HRS							
861378	ANZA X CAJEME 71	N1	601-35	HRS							





NURSCO 35

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
861379	ANZA X CAJEME 71 N1	601-36	HRS	64.2	70.7	0.38	86.4	7.9	60.0	3L
861380	ANZA X CAJEME 71 N1	601-37	HRS	64.5	70.8	0.42	84.2	7.5	59.3	5L
861381	ANZA X CAJEME 71 N1	601-38	HRS	64.9	70.0	0.43	83.1	8.9	62.6	7M
861382	ANZA X CAJEME 71 N1	601-39	HRS	64.4	68.2	0.40	82.8	7.3	59.0	5L
861383	CAJEME 71	601-40	HRS	64.4	69.3	0.39	84.2	7.5	64.2	6L
861384	ANZA X CAJEME 71 N1	601-41	HRS	64.5	70.8	0.35	88.1	7.1	58.4	2L
861385	ANZA X CAJEME 71 N1	601-42	HRS	63.0	68.7	0.76	64.6	7.5	61.5	3L
861386	ANZA X CAJEME 71 N1	601-43	HRS	63.7	71.1	0.35	88.2	8.6	59.3	2M
861387	ANZA X CAJEME 71 N1	601-44	HRS	62.3	69.8	0.35	86.8	7.1	60.1	3L
861388	ANZA X CAJEME 71 N1	601-45	HRS	61.0	69.6	0.41	83.6	7.5	58.2	4L
861389	ANZA X CAJEME 71 N1	601-46	HRS	63.3	69.0	0.38	84.7	8.4	60.5	3M
861390	ANZA X CAJEME 71 N1	601-47	HRS	62.9	70.2	0.43	83.3	7.4	58.6	8L
861391	ANZA (C1015284)	601-48	HRS	63.9	71.7	0.38	87.2	7.2	58.5	2L
861392	ANZA X CAJEME 71 N3	6/ 601-01	HRS	63.2	73.8	0.46	85.3	11.2	61.6	3H
861393	ANZA X CAJEME 71 N3	601-02	HRS	62.5	68.4	0.33	86.8	12.4	60.5	3H
861394	ANZA X CAJEME 71 N3	601-03	HRS	63.5	71.8	0.36	88.6	13.3	62.5	3H
861395	ANZA X CAJEME 71 N3	601-04	HRS	62.0	71.5	0.34	89.0	11.9	60.0	3M
861396	ANZA X CAJEME 71 N3	601-05	HRS	63.3	72.2	0.34	89.8	11.2	59.6	2H
861397	ANZA X CAJEME 71 N3	601-06	HRS	64.0	71.4	0.31	90.8	11.6	60.7	2H
861398	ANZA X CAJEME 71 N3	6/ 601-07	HRS	62.1	72.2	0.35	89.3	10.9	62.6	2H
861399	ANZA X CAJEME 71 N3	601-08	HRS	61.8	71.0	0.34	88.5	10.8	61.1	2H
861400	ANZA X CAJEME 71 N3	6/ 601-09	HRS	64.1	71.9	0.35	89.1	11.3	63.5	3H
861401	CAJEME 71	601-10	HRS	63.0	71.5	0.35	88.5	12.1	63.2	4H
861402	ANZA X CAJEME 71 N3	6/ 601-11	HRS	63.5	70.0	0.36	86.9	9.7	61.9	8M
861403	ANZA X CAJEME 71 N3	601-12	HRS	63.5	73.2	0.34	91.0	11.6	62.3	2H
861404	ANZA X CAJEME 71 N3	601-13	HRS	62.5	72.5	0.35	90.1	11.7	61.9	2H
861405	ANZA X CAJEME 71 N3	601-14	HRS	62.2	73.3	0.35	90.8	11.5	60.9	2H
861406	ANZA X CAJEME 71 N3	601-15	HRS	62.8	71.8	0.36	88.6	12.2	62.1	2H
861407	ANZA X CAJEME 71 N3	601-16	HRS	64.0	71.3	0.32	90.2	12.2	61.3	2H
861408	ANZA X CAJEME 71 N3	6/ 601-17	HRS	62.2	72.1	0.36	89.1	10.8	60.2	4M
861409	ANZA X CAJEME 71 N3	601-18	HRS	63.1	71.2	0.39	86.6	10.9	62.7	2H
861410	ANZA X CAJEME 71 N3	601-19	HRS	61.8	71.1	0.38	87.0	12.8	61.8	2H
861411	ANZA (C1015284)	601-20	HRS	64.3	72.8	0.34	90.8	10.3	62.1	2M
861412	ANZA X CAJEME 71 N3	601-21	HRS	62.1	71.6	0.33	90.1	10.8	61.5	4M
861413	ANZA X CAJEME 71 N3	6/ 601-22	HRS	62.4	72.0	0.33	90.1	11.6	62.6	3H



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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861379	ANZA X CAJEME 71 N1	601-36	HRS							
861380	ANZA X CAJEME 71 N1	601-37	HRS							
861381	ANZA X CAJEME 71 N1	601-38	HRS							
861382	ANZA X CAJEME 71 N1	601-39	HRS							
861383	CAJEME 71	601-40	HRS							
861384	ANZA X CAJEME 71 N1	601-41	HRS							
861385	ANZA X CAJEME 71 N1	601-42	HRS							
861386	ANZA X CAJEME 71 N1	601-43	HRS							
861387	ANZA X CAJEME 71 N1	601-44	HRS							
861388	ANZA X CAJEME 71 N1	601-45	HRS							
861389	ANZA X CAJEME 71 N1	601-46	HRS							
861390	ANZA X CAJEME 71 N1	601-47	HRS							
861391	ANZA (C1015284)	601-48	HRS							
861392	ANZA X CAJEME 71 N3	601-01	HRS	64.5	63.3	2.9	860	786	20-LVOL	
861393	ANZA X CAJEME 71 N3	601-02	HRS	64.6	62.2	2.4	860	711	6P-FYELD&BCRGR	
861394	ANZA X CAJEME 71 N3	601-03	HRS	67.5	64.2	2.8	950	745	4 Q-LVOL&BCRGR	
861395	ANZA X CAJEME 71 N3	601-04	HRS	63.6	61.7	1.9	875	757	4 P-MTIME Q-BCRGR	
861396	ANZA X CAJEME 71 N3	601-05	HRS	61.5	60.3	1.3	820	746	6 P-MTIME, LVOL&BCRGR	
861397	ANZA X CAJEME 71 N3	601-06	HRS	64.0	62.4	1.5	840	741	8 P-MTIME, LVOL&BCRGR	
861398	ANZA X CAJEME 71 N3	601-07	HRS	64.2	63.3	2.0	930	874	3 Q-BCRGR	
861399	ANZA X CAJEME 71 N3	601-08	HRS	63.6	62.8	1.9	775	725	6 P-MTIME, LVOL&BCRGR	
861400	ANZA X CAJEME 71 N3	601-09	HRS	66.5	65.2	3.3	905	824	2	
861401	CAJEME 71	601-10	HRS	67.0	64.9	3.3	955	825	2	
861402	ANZA X CAJEME 71 N3	601-11	HRS	63.3	63.6	3.9	775	794	4 Q-BCRGR	
861403	ANZA X CAJEME 71 N3	601-12	HRS	63.6	62.0	1.7	950	851	4 P-MTIME Q-BCRGR	
861404	ANZA X CAJEME 71 N3	601-13	HRS	65.3	63.6	1.8	920	815	3 P-MTIME	
861405	ANZA X CAJEME 71 N3	601-14	HRS	63.1	61.6	1.3	885	792	4 P-MTIME&BCRGR	
861406	ANZA X CAJEME 71 N3	601-15	HRS	65.0	62.8	1.3	920	784	5 P-MTIME&BCRGR	
861407	ANZA X CAJEME 71 N3	601-16	HRS	65.2	63.0	2.2	855	719	6 P-MTIME&BCRGR	
861408	ANZA X CAJEME 71 N3	601-17	HRS	62.7	61.9	2.8	985	935	6 Q-P-BCRGR	
861409	ANZA X CAJEME 71 N3	601-18	HRS	65.3	64.4	1.8	800	744	6 P-MTIME, BCRGR&LVOL	
861410	ANZA X CAJEME 71 N3	601-19	HRS	66.3	63.5	2.1	905	731	4 P-MTIME, BCRGR&LVOL	
861411	ANZA (C1015284)	601-20	HRS	63.1	62.8	1.3	825	806	8	
861412	ANZA X CAJEME 71 N3	601-21	HRS	64.0	63.2	2.8	850	800	7 P-BCRGR	
861413	ANZA X CAJEME 71 N3	601-22	HRS	65.9	64.3	3.1	960	861	3	



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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861414	ANZA X CAJEME 71 N3	601-23	HRS	60.9	70.2	0.41	84.3	10.4	63.0	4M
861415	ANZA X CAJEME 71 N3	601-24	HRS	62.3	72.2	0.40	86.7	11.2	62.1	2H
861416	ANZA X CAJEME 71 N3	601-25	HRS	61.1	72.5	0.36	89.4	11.3	59.6	2M
861417	ANZA X CAJEME 71 N3	601-26	HRS	63.4	72.6	0.33	91.2	11.2	59.6	3M
861418	ANZA X CAJEME 71 N3	601-27	HRS	61.4	75.0	0.54	82.6	10.9	58.0	2H
861419	ANZA X CAJEME 71 N3	601-28	HRS	63.2	71.2	0.37	87.6	11.4	63.0	2H
861420	ANZA X CAJEME 71 N3	601-29	HRS	62.0	71.1	0.34	88.9	10.3	62.5	4H
861421	YECORA ROJO (CI017414)	601-30	HRS	62.7	71.3	0.35	88.3	11.9	64.0	5H
861422	ANZA X CAJEME 71 N3	601-31	HRS	64.3	70.9	0.37	87.1	12.0	63.0	2H
861423	ANZA X CAJEME 71 N3	601-32	HRS	63.3	70.3	0.36	86.8	11.7	61.1	1H
861424	ANZA X CAJEME 71 N3	601-33	HRS	62.0	69.1	0.36	85.7	11.3	63.4	2H
861425	ANZA X CAJEME 71 N3	601-34	HRS	62.5	69.7	0.37	85.9	11.2	63.1	2H
861426	ANZA X CAJEME 71 N3	601-35	HRS	61.3	71.7	0.36	88.3	10.5	59.4	4M
861427	ANZA X CAJEME 71 N3	601-36	HRS	62.9	73.5	0.34	91.4	11.8	61.0	1H
861428	ANZA X CAJEME 71 N3	6/ 601-37	HRS	64.4	73.0	0.33	91.3	11.1	60.2	6M
861429	ANZA X CAJEME 71 N3	601-38	HRS	64.0	72.2	0.37	88.4	12.7	63.3	4H
861430	ANZA X CAJEME 71 N3	6/ 601-39	HRS	62.5	70.1	0.36	86.7	10.9	63.3	4H
861431	CAJEME 71	6/ 601-40	HRS	62.6	71.7	0.34	89.3	12.4	61.1	4H
861432	ANZA X CAJEME 71 N3	601-41	HRS	63.5	71.5	0.34	89.5	11.4	60.4	3M
861433	ANZA X CAJEME 71 N3	601-42	HRS	62.5	70.8	0.33	89.2	12.0	60.9	2H
861434	ANZA X CAJEME 71 N3	601-43	HRS	63.0	72.0	0.36	89.0	11.7	58.0	1H
861435	ANZA X CAJEME 71 N3	601-44	HRS	62.2	71.0	0.32	89.6	11.2	61.1	2H
861436	ANZA X CAJEME 71 N3	601-45	HRS	60.6	70.0	0.38	85.4	10.1	61.6	6M
861437	ANZA X CAJEME 71 N3	601-46	HRS	62.1	71.2	0.34	89.1	11.7	59.6	1H
861438	ANZA X CAJEME 71 N3	6/ 601-47	HRS	61.7	70.8	0.36	87.3	11.9	60.5	4H
861439	ANZA (CI015284)	601-48	HRS	63.6	72.4	0.33	90.9	10.4	58.7	2M





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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861414	ANZA X CAJEME 71 N3	601-23	HRS	65.1	64.7	2.9	820	795		6P-LVOL&BCRGR
861415	ANZA X CAJEME 71 N3	601-24	HRS	64.0	62.8	1.3	900	826		4P-MTIME&BCRGR
861416	ANZA X CAJEME 71 N3	601-25	HRS	61.6	60.3	1.1	875	794		6P-MTIME&BCRGR
861417	ANZA X CAJEME 71 N3	601-26	HRS	61.5	60.3	2.4	910	836		4P-MTIME&BCRGR
861418	ANZA X CAJEME 71 N3	601-27	HRS	59.6	58.7	1.7	830	774		8P-MTIME&BCRGR
861419	ANZA X CAJEME 71 N3	601-28	HRS	65.1	63.7	1.7	885	798		6P-MTIME&BCRGR
861420	ANZA X CAJEME 71 N3	601-29	HRS	64.5	64.2	3.4	840	821		6P-BCRGR
861421	YECORA ROJO (C1017414)	601-30	HRS	67.6	65.7	4.2	900	782		2
861422	ANZA X CAJEME 71 N3	601-31	HRS	66.7	64.7	2.1	840	716		6P-MTIME, LVOL&BCRGR
861423	ANZA X CAJEME 71 N3	601-32	HRS	63.0	61.3	1.1	880	775		8P-MTIME, LVOL&BCRGR
861424	ANZA X CAJEME 71 N3	601-33	HRS	66.4	65.1	2.4	870	789		6P-MTIME, LVOL&BCRGR
861425	ANZA X CAJEME 71 N3	601-34	HRS	65.5	64.3	2.1	895	821		6P-MTIME, LVOL&BCRGR
861426	ANZA X CAJEME 71 N3	601-35	HRS	60.6	60.1	2.4	840	809		6P-MTIME, LVOL&BCRGR
861427	ANZA X CAJEME 71 N3	601-36	HRS	63.0	61.2	1.2	890	778		7P-MTIME, LVOL&BCRGR
861428	ANZA X CAJEME 71 N3	601-37	HRS	63.0	61.9	2.8	905	837		3
861429	ANZA X CAJEME 71 N3	601-38	HRS	67.7	65.0	3.2	930	763		4Q-LVOL&BCRGR
861430	ANZA X CAJEME 71 N3	601-39	HRS	65.9	65.0	3.2	885	829		4Q-BCRGR
861431	CAJEME 71	601-40	HRS	65.2	62.8	3.1	960	811		3Q-BCRGR
861432	ANZA X CAJEME 71 N3	601-41	HRS	62.5	61.1	1.4	860	773		5P-MTIME, LVOL&BCRGR
861433	ANZA X CAJEME 71 N3	601-42	HRS	64.6	62.6	1.7	925	801		4P-MTIME, LVOL&BCRGR
861434	ANZA X CAJEME 71 N3	601-43	HRS	61.4	59.7	1.5	815	710		6P-MTIME, LVOL&BCRGR
861435	ANZA X CAJEME 71 N3	601-44	HRS	64.0	62.8	1.7	835	761		7P-MTIME, LVOL&BCRGR
861436	ANZA X CAJEME 71 N3	601-45	HRS	63.4	63.3	2.9	880	874		8P-BCRGR
861437	ANZA X CAJEME 71 N3	601-46	HRS	63.0	61.3	1.5	890	785		6P-MTIME, LVOL&BCRGR
861438	ANZA X CAJEME 71 N3	601-47	HRS	64.1	62.2	3.3	910	792		4Q-BCRGR
861439	ANZA (C1015284)	601-48	HRS	60.8	60.4	1.8	850	825		7

COMMENTS: This group of Anza X Cajeme 71 crosses were grown under a low (N1) and high (N3) fertility regime. Because of the low (7-8%) flour protein, no baking was performed on the N1 samples. Most are characterized by short dough mixing properties, low loaf volumes, and heavy bread crumbs, but there were a few exceptions and these are footnoted as promising (some of these, however, still have some questionable characteristics). See "Remarks".

P = Poor; Q = Questionable



## ADVANCED SEPTORIA YIELD TRIAL

USDA, SEA AR  
WESTERN WHEAT  
PULLMAN, WA.

NURSCO 36

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861441	(NUDIF TP250*166R*2)*(TADORNA*166R*2)	6/ 606-11	HRS	62.1	70.3	0.38	86.0	11.1	64.1	4H
861442	UC489	606-12	HRS	64.4	69.4	0.41	83.6	10.8	62.5	2H
861443	YECORA ROJO (C1017414)	606-13	HRS	62.8	68.5	0.44	80.9	10.7	63.5	8M
861444	ANZA (C1015284)	606-14	HRS	63.5	69.9	0.33	88.3	9.8	61.4	2M
861445	INIA 66	606-16	HRS	62.0	68.1	0.38	83.6	11.5	62.8	6M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861441	(NUDIF TP250*166R*2)*(TADORNA*166R*2)	606-11	HRS	65.9	65.8	3.1	770	764	4	4 = to Yecora Rojo
861442	UC489	606-12	HRS	64.0	64.2	1.9	740	752	8	P-MTIME, LVOL&BCRGR
861443	YECORA ROJO (C1017414)	606-13	HRS	64.9	65.2	4.0	775	794	4	
861444	ANZA (C1015284)	606-14	HRS	60.9	62.1	1.2	670	744	9	
861445	INIA 66	606-16	HRS	65.0	64.5	3.2	830	796	3	

1/ Observed Values Corrected to 14% Moisture Basis.2/ Absorption at 14% Moisture Corrected to 11% Protein.3/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Selection 606-11 appears equal or better than Yecora Rojo in overall quality. UC-489, however, is very poor in baking quality.

P = Poor



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DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861446	(CLEO*166)*ANZA	607-2	HRS	63.9	72.9	0.40	87.5	10.6	61.3	4M
861447	(NUDIF TP250*166R*2)*(TADORNA*166R*2)	607-7	HRS	64.4	74.0	0.36	91.1	12.5	63.4	4H
861448	CLEO*ANZA	607-10	SRS	61.7	69.2	0.43	81.6	11.6	62.9	3H
861449	CLEO*ANZA	607-11	HRS	63.5	70.6	0.41	84.5	11.6	63.9	2H
861450	CLEO*ANZA	607-12	HRS	63.8	71.3	0.40	85.8	12.0	65.7	2H
861451	TADORNA*YECORA ROJO	607-14	SRS	62.7	73.6	0.41	88.4	10.7	60.8	3M
861452	TADORNA*YECORA ROJO	607-15	SRS	62.7	72.9	0.42	87.0	10.3	60.0	3M
861453	UC489 RESIS	607-18	HRS	64.9	69.9	0.37	85.9	10.9	63.8	2H
861454	UC489 RESIS	607-19	HRS	64.4	69.9	0.38	85.4	10.5	64.5	3H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861446	(CLEO*166)*ANZA	607-2	HRS	62.6	63.0	2.3	750	775	6	P-MTIME, LVOL&BCRGR
861447	(NUDIF TP250*166R*2)*(TADORNA*166R*2)	607-7	HRS	66.6	65.1	3.1	810	717	6	P-LVOL&BCRGR
861448	CLEO*ANZA	607-10	SRS	64.2	63.6	2.2	955	919	4	Soft Q-MTIME&BCRGR
861449	CLEO*ANZA	607-11	HRS	66.2	65.6	2.0	860	823	6	P-MTIME, BCRGR&LVOL
861450	CLEO*ANZA	607-12	HRS	68.4	67.4	2.0	865	803	6	P-MTIME, BCRGR&LVOL
861451	TADORNA*YECORA ROJO (Soft)	607-14	SRS	62.2	62.5	2.2	890	908	5	P-MTIME, LVOL&BCRGR
861452	TADORNA*YECORA ROJO (Soft)	607-15	SRS	60.0	60.7	1.8	840	882	6	P-MTIME, LVOL&BCRGR
861453	UC489 RESIS	607-18	HRS	65.4	65.5	2.0	805	811	6	P-MTIME, LVOL&BCRGR
861454	UC489 RESIS	607-19	HRS	65.7	66.2	2.2	815	846	6	P-MTIME, LVOL&BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: All of these selections appear unacceptable in baking quality. No check varieties were included for reference. Weaknesses are short mixing times and associated heavy crumb structure.

P = Poor



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C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861455	NURI S' ANZA	6/ 611-1	HRS	64.6	72.0	0.36	88.9	11.6	61.9	2H
861456	(CNO S' *2*INIA)*ANZA	611-3	HRS	63.8	71.5	0.38	87.1	10.5	61.4	3M
861457	(JUSTIN 47-51*2*SC66)*ANZA	6/ 611-13	HRS	62.4	71.3	0.43	84.2	11.3	64.1	5H
861458	(TOB66*R50)*166	6/ 611-14	HRS	64.6	70.3	0.40	84.7	10.7	64.0	4H
861459	YECORA ROJO (CI017414)	611-15	HRS	63.9	70.4	0.43	83.7	9.8	65.2	8M
861460	ANZA*JUSTIN	611-17	HRS	64.8	73.7	0.34	91.4	10.3	61.7	1H
861461	NURI S' ANZA	611-21	HRS	65.3	71.8	0.39	87.2	10.4	62.3	4M
861462	ANZA*(D6301*NAINARI60)	611-31	HRS	63.7	71.8	0.44	84.2	10.7	64.3	3H
861463	ANZA*JUSTIN	5/ 611-32	HRS	62.8	71.4	0.38	87.2	11.7	64.2	3H
861464	166R*2*JUSTIN	6/ 611-38	HRS	64.6	71.2	0.32	90.1	11.9	63.8	5H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861455	NURI S' ANZA	611-1	HRS	64.2	63.6	2.1	855	818	4 Q-MTIME	4 Q-MTIME
861456	(CNO S' *2*INIA)*ANZA	611-3	HRS	61.6	62.1	1.7	900	931	5 P-MTIME	5 P-MTIME Q-BCRGR
861457	(JUSTIN 47-51*2*SC66)*ANZA	611-13	HRS	66.1	65.8	3.6	870	851	3	3 Q-LVOL
861458	(TOB66*R50)*166	611-14	HRS	65.4	65.7	3.1	765	784	3	3 Q-LVOL
861459	YECORA ROJO (CI017414)	611-15	HRS	65.7	66.9	4.7	765	839	4	4
861460	ANZA*JUSTIN	611-17	HRS	61.7	62.4	1.4	855	898	7 P-MTIME&BCRGR	7 P-MTIME&BCRGR
861461	NURI S' ANZA	611-21	HRS	63.4	64.0	2.9	765	802	6 P-BCRGR	6 P-BCRGR
861462	ANZA*(D6301*NAINARI60)	611-31	HRS	65.7	66.0	3.0	805	824	6 P-BCRGR	6 P-BCRGR
861463	ANZA*JUSTIN	611-32	HRS	66.6	65.9	2.6	905	862	2	2
861464	166R*2*JUSTIN	611-38	HRS	66.4	65.5	3.6	850	794	4 Q-LVOL	4 Q-LVOL

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Selection 611-32 is superior to all others in overall quality. Others, footnoted as promising, are marginal in loaf volume as compared to Yecora Rojo. See "Remarks".

Q = Questionable; P = Poor





NURSCO 39

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861465	71-T121 RESEL*ANA75	612-3	HRS	63.9	72.4	0.39	87.4	10.2	63.2	3H
861466	ANZA*(D6301*NAINARI60)	612-5	HRS	62.3	69.6	0.44	81.8	10.3	63.6	4H
861467	BANKUTI*RED RIVER	6/ 612-11	HRS	62.2	70.9	0.38	86.5	12.9	67.0	5H
861468	RED RIVER 68*2*BANKUTI 284656	6/ 612-12	HRS	62.1	72.1	0.39	87.1	11.9	65.4	5H
861469	PORTOLA	6/ 612-13	HRS	64.0	71.5	0.36	88.4	10.3	63.0	3H
861470	YECORA ROJO (C1017414)	612-14	HRS	62.4	70.6	0.37	86.9	11.1	65.9	6H
861471	ANZA (C1015284)	612-15	HRS	63.9	72.3	0.37	88.8	9.2	61.2	2M
861472	TZPP*ANZA*2	612-21	HRS	64.2	71.2	0.37	87.3	9.9	64.3	6M
861473	TZPP*ANZA*2	612-22	HRS	63.4	72.2	0.37	88.3	10.4	63.1	3M
861474	TZPP*ANZA*2	612-23	HRS	64.0	71.8	0.37	87.8	10.6	64.7	2H
861475	TZPP*ANZA*2	612-24	HRS	64.1	72.2	0.36	88.8	10.4	64.7	4M
861476	TZPP*ANZA*2	612-26	HRS	64.0	72.8	0.35	89.9	10.2	64.6	3M
861477	DGA*BJY S'	6/ 612-33	HWS	63.1	70.6	0.36	87.0	10.5	64.5	4H
861478	WHEATON	612-34	HRS	61.6	70.8	0.38	86.4	10.8	66.0	5H
861479	MN7357	612-35	HRS	62.2	71.9	0.37	87.9	10.6	65.2	5H
861480	MARCOS JUAREZ INIA	612-36	HRS	62.3	69.8	0.40	84.3	10.2	64.7	6M
861481	IA7873	6/ 612-37	HWS	62.3	71.0	0.41	85.2	11.0	63.5	6M
861482	ALONDRA S'	612-38	HRS	61.0	69.2	0.46	80.7	11.0	63.0	2H
861483	TRISA INIA	6/ 612-39	HWS	62.9	71.7	0.40	86.3	10.2	62.5	8M
861484	ALMANSOR 1	612-40	HWS	62.8	68.0	0.37	84.2	10.7	65.7	4H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 39

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861465	71-T121 RESEL*ANA75	612-3	HRS	64.1	64.9	2.8	760	810	4 Q-LVOL&BCRGR	
861466	ANZA*(D6301*NAINARI60)	612-5	HRS	64.6	65.3	3.1	800	843	6 P-BCRGR&FYELD	
861467	BANKUTI*RED RIVER	612-11	HRS	70.6	68.7	4.2	915	797	1 Q-LVOL	
861468	RED RIVER 68*2*BANKUTI 284656	612-12	HRS	68.0	67.1	4.2	875	819	2	
861469	PORTOLA	612-13	HRS	64.0	64.7	2.8	840	883	3 Q-BCRGR	
861470	YECORA ROJO (C1017414)	612-14	HRS	67.7	67.6	4.5	875	869	2	
861471	ANZA (C1015284)	612-15	HRS	60.1	61.9	1.4	735	847	8	
861472	TZPP*ANZA*2	612-21	HRS	64.9	66.0	2.9	740	808	P-BCRGR	
861473	TZPP*ANZA*2	612-22	HRS	64.2	64.8	1.9	840	877	5 P-MTIME&BCRGR	
861474	TZPP*ANZA*2	612-23	HRS	66.0	66.4	2.1	885	910	6 P-MTIME&BCRGR	
861475	TZPP*ANZA*2	612-24	HRS	65.8	66.4	2.3	780	817	6 P-MTIME&BCRGR	
861476	TZPP*ANZA*2	612-26	HRS	65.5	66.3	1.9	845	895	7 P-MTIME&BCRGR	
861477	DGA*BJY S'	612-33	HWS	65.7	66.2	3.4	825	856	2	
861478	WHEATON	612-34	HRS	68.5	68.7	3.6	800	812	4 Q-BCRGR&LVOL	
861479	MN7357	612-35	HRS	66.5	66.9	3.3	775	800	5 Q-BCRGR, LVOL	
861480	MARCOS JUAREZ INIA	612-36	HRS	65.6	66.4	3.0	775	825	5 Q-BCRGR&LVOL	
861481	IA7873	612-37	HWS	65.2	65.2	3.1	790	790	2 Q-LVOL	
861482	ALONDRA S'	612-38	HRS	64.7	64.7	2.3	760	760	6 Q-MTIME&BCRGR	
861483	TRISA INIA	612-39	HWS	63.4	64.2	4.2	765	815	3 Q-BCRGR	
861484	ALMANSOR 1	612-40	HWS	67.1	67.4	3.0	820	839	4 Q-FYELD&BCRGR	

COMMENTS: Several of these selections are not normal in loaf volume for their protein content. Many were also marginal-to-undesirable in crumb grain structure. Those footnoted appear to have some promise in meeting bakery standards.

Q = Questionable; P = Poor



USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## ADVANCED BREAD WHEAT YIELD TRIAL

NURSCO 40

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861485	BUC S'-BJY S'	613-8	HRS	62.5	69.1	0.41	83.1	11.0	65.0	4H
861486	(INIA S'-ON*INIA-BB/JUP)BUC S'	613-10	HWS	64.4	70.9	0.39	86.0	10.7	61.0	6M
861487	KEA S'-TOW S'	613-11	HWS	64.8	68.5	0.39	83.8	10.4	63.7	8M
861488	YECORA ROJO (CI017414)	613-14	HRS	63.7	70.9	0.39	86.2	10.2	65.3	8M
861489	KEA S'	613-17	HRS	63.9	67.3	0.40	81.8	10.3	64.2	4M
861490	KEA S'-BUC S'	613-20	HRS	64.1	67.2	0.42	80.7	10.4	60.6	1H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861485	BUC S'-BJY S'	613-8	HRS	67.7	66.7	2.6	835	773	7 P-BCRGR	
861486	(INIA S'-ON*INIA-BB/JUP)BUC S'	613-10	HWS	63.4	62.7	2.6	840	797	7 P-BCRGR	
861487	KEA S'-TOW S'	613-11	HWS	65.8	65.4	4.0	785	760	8 P-BCRGR	
861488	YECORA ROJO (CI017414)	613-14	HRS	67.2	67.0	5.1	815	803	3 P-BCRGR	
861489	KEA S'	613-17	HRS	66.2	65.9	2.6	725	706	8 P-LVOL&BCRGR	
861490	KEA S'-BUC S'	613-20	HRS	62.7	62.3	1.7	735	710	9 P-LVOL&BCRGR	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: None of these advanced selections have suitable bread baking quality.

P = Poor





NURSCO 41

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MITYPE
						1/		1/	3/	
861491	(JARAL*2*MENG-8156),ROBIN*SHASTA	632-2	HRS	62.5	69.9	0.57	75.8	11.5	63.7	2H
861492	(JARAL*2*MENG-8156),ROBIN* ((CI13232*R...	632-6	HRS	63.1	71.0	0.44	83.8	10.4	64.7	2H
861493	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...	632-7	HRS	62.5	71.7	0.42	85.2	11.6	63.9	1H
861494	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...	632-8	HRS	62.6	70.3	0.42	84.0	11.3	64.2	2H
861495	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...	632-11	HRS	63.1	69.4	0.39	84.6	9.9	63.8	4M
861496	ANZA (CI015284)	632-20	HRS	64.7	72.9	0.35	90.3	9.1	61.7	2M
861497	YECORA ROJO (CI017414)	632-21	HRS	63.4	70.9	0.37	87.2	10.9	65.1	5H
861498	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...	6/	HRS	64.7	72.8	0.35	90.3	10.9	66.0	5H
861499	SHASTA*YECORA ROJO	632-30	HRS	62.6	68.4	0.39	83.3	10.1	63.6	6M
861500	SHASTA*YECORA ROJO	632-32	HRS	62.2	70.0	0.41	84.1	10.1	65.2	6M
861501	SHASTA*YECORA ROJO	632-33	HRS	63.1	70.3	0.38	85.7	9.9	64.0	8M
861502	SHASTA*YECORA ROJO	632-36	HRS	61.6	69.7	0.41	83.5	11.7	64.3	4H
861503	SHASTA*CORCORAQUE F75	632-38	HRS	63.4	69.5	0.37	85.4	11.2	64.2	2H
861504	SHASTA*CORCORAQUE F75	632-43	HRS	64.6	71.6	0.40	86.2	11.2	63.5	3H
861505	SHASTA*CORCORAQUE F75	632-45	HRS	63.7	71.9	0.38	87.6	10.9	63.5	2H
861506	SHASTA*CORCORAQUE F75	632-46	HRS	65.0	66.9	0.38	82.3	10.3	63.3	2H
861507	(BB S'*ANZA)*YECORA ROJO	632-47	HRS	65.3	73.6	0.32	92.3	10.3	61.6	4M
861508	(BB S'*ANZA)*YECORA ROJO	632-50	HRS	64.1	71.5	0.33	89.7	10.3	63.9	8M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 41

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861491	(JARAL*2*MENG-8156), ROBIN*SHASTA	632-2	HRS	65.9	65.4	2.2	800	769	5 P-MTIME, LVOL&BCRGR	
861492	(JARAL*2*MENG-8156), ROBIN*SHASTA	632-6	HRS	65.8	66.4	2.3	770	807	5 P-MTIME, LVOL&BCRGR	
861493	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...)	632-7	HRS	65.2	64.6	1.3	775	738	7 P-MTIME, LVOL&BCRGR	
861494	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...)	632-8	HRS	66.2	65.9	2.0	835	816	7 P-MTIME, LVOL&BCRGR	
861495	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...)	632-11	HRS	64.4	65.5	2.6	775	843	5 P-MTIME, LVOL&BCRGR	
861496	ANZA (C1015284)	632-20	HRS	60.5	62.4	1.2	705	823	9	
861497	YECORA ROJO (C1017414)	632-21	HRS	66.7	66.8	3.7	895	901	2	
861498	((TZPP*WTE)*3*NP63)*(INIA S'*(SON64*...)	632-23	HRS	67.6	67.7	3.4	845	851	3 Q-LVOL&BCRGR	
861499	SHASTA*YECORA ROJO	632-30	HRS	64.4	65.3	3.6	715	771	6 P-FYELD, LVOL&BCRGR	
861500	SHASTA*YECORA ROJO	632-32	HRS	66.0	66.9	2.9	765	821	4 P-LVOL&BCRGR	
861501	SHASTA*YECORA ROJO	632-33	HRS	64.6	65.7	3.6	840	908	4 Q-BCRGR	
861502	SHASTA*YECORA ROJO	632-36	HRS	66.7	66.0	3.1	760	717	3 P-LVOL	
861503	SHASTA*CORCORAQUE F75	632-38	HRS	66.1	65.9	2.0	755	743	6 P-MTIME, LVOL&BCRGR	
861504	SHASTA*CORCORAQUE F75	632-43	HRS	65.4	65.2	2.3	810	798	3 P-MTIME, LVOL	
861505	SHASTA*CORCORAQUE F75	632-45	HRS	65.1	65.2	2.2	825	831	3 P-MTIME&LVOL	
861506	SHASTA*CORCORAQUE F75	632-46	HRS	64.3	65.0	2.1	820	863	6 P-MTIME, LVOL&BCRGR	
861507	(BB S'*ANZA)*YECORA ROJO	632-47	HRS	62.6	63.3	2.5	830	873	5 P-MTIME&BCRGR	
861508	(BB S'*ANZA)*YECORA ROJO	632-50	HRS	64.9	65.6	4.8	835	878	3 Q-BCRGR	

COMMENTS: See "Remarks" for deficiencies. Most common was poor dough mixing properties and/or low loaf volume and heavy crumb grain.

P = Poor; Q = Questionable



NURSCO 42

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861509	(BB'S' *ANZA) *YECORA ROJO	6/633-1	HRS	62.2	72.7	0.36	89.4	9.3	62.7	6M
861510	(BB'S' *ANZA) *YECORA ROJO	5/633-2	HRS	62.4	72.4	0.36	89.3	10.4	63.0	6M
861511	(BB'S' *ANZA) *YECORA ROJO	6/633-3	HRS	62.3	70.4	0.38	86.3	10.2	65.0	6M
861512	(BB'S' *ANZA) * (KURTZMANN *ANZA)	633-5	HRS	63.8	71.9	0.39	87.3	10.0	63.2	3M
861513	(BB'S' *ANZA) * (KURTZMANN *ANZA)	633-8	HRS	63.6	70.9	0.39	86.3	10.6	63.1	3M
861514	(BB'S' *ANZA) * (KURTZMANN *ANZA)	633-9	HRS	64.1	71.1	0.38	86.9	9.9	60.1	2M
861515	(BB'S' *ANZA) * (KURTZMANN *ANZA)	633-14	HRS	64.4	70.5	0.40	85.3	9.5	62.7	3M
861516	ANZA (C1015284)	633-20	HRS	64.1	73.1	0.35	90.3	9.5	58.3	2M
861517	YECORA ROJO (C1017414)	633-21	HRS	63.4	71.7	0.46	83.3	10.5	63.9	5H
861518	(AZTECA67 *ANZA) *YECORA ROJO	633-27	HRS	63.3	72.8	0.36	89.3	10.7	63.3	3H
861519	(AZTECA67 *ANZA) *YECORA ROJO	633-31	HRS	64.6	70.4	0.37	86.5	11.0	65.1	4H
861520	(AZTECA67 *ANZA) *YECORA ROJO	6/633-32	HRS	62.7	71.5	0.50	80.7	11.0	64.0	5H
861521	(AZTECA67 *ANZA) *YECORA ROJO	633-33	HRS	64.2	71.7	0.36	88.6	10.2	65.7	5H
861522	(AZTECA67 *ANZA) *SHASTA	633-34	HRS	63.1	70.2	0.38	86.0	10.2	63.8	2H
861523	(AZTECA67 *ANZA) *SHASTA	633-39	HRS	64.1	71.4	0.40	86.0	10.4	63.6	2H
861524	(AZTECA67 *ANZA) *SHASTA	633-43	HRS	62.3	68.3	0.44	80.9	11.0	63.8	2H
861525	(AZTECA67 *ANZA) *SHASTA	633-44	HRS	64.0	69.4	0.40	83.9	10.4	63.9	4M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 42

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861509	(BB'SI*ANZA)*YECORA ROJO	633-1	HRS	63.7	64.4	2.9	820	863	4 ≥ Yecora Rojo	
861510	(BB'SI*ANZA)*YECORA ROJO	633-2	HRS	65.1	64.7	3.3	950	925	3 ≥ Yecora Rojo	
861511	(BB'SI*ANZA)*YECORA ROJO	633-3	HRS	66.9	66.7	3.7	875	863	4 ≥ Yecora Rojo	
861512	(BB'SI*ANZA)*KURTZMANN*ANZA)	633-5	HRS	63.9	63.9	1.8	780	780	6 P-MTIME&BCRGR	
861513	(BB'SI*ANZA)*KURTZMANN*ANZA)	633-8	HRS	65.4	64.8	1.7	735	698	7 P-MTIME&BCRGR	
861514	(BB'SI*ANZA)*KURTZMANN*ANZA)	633-9	HRS	61.7	61.8	1.3	670	676	9 P-MTIME&BCRGR	
861515	(BB'SI*ANZA)*KURTZMANN*ANZA)	633-14	HRS	63.9	64.4	2.0	710	741	9 P-MTIME&BCRGR	
861516	ANZA (C1015284)	633-20	HRS	59.5	60.0	1.8	675	706	9	
861517	YECORA ROJO (C1017414)	633-21	HRS	66.1	65.6	4.0	790	759	4	
861518	(AZTECA67*ANZA)*YECORA ROJO	633-27	HRS	65.7	65.0	2.3	795	752	4 Q-MTIME	
861519	(AZTECA67*ANZA)*YECORA ROJO	633-31	HRS	67.8	66.8	3.4	795	733	5 Q-BCRGR	
861520	(AZTECA67*ANZA)*YECORA ROJO	633-32	HRS	66.7	65.7	3.7	885	823	4 ≥ Yecora Rojo	
861521	(AZTECA67*ANZA)*YECORA ROJO	633-33	HRS	67.6	67.4	4.4	765	753	5 Q-BCRGR	
861522	(AZTECA67*ANZA)*SHASTA	633-34	HRS	65.7	65.5	1.8	730	718	8 P-MTIME&BCRGR	
861523	(AZTECA67*ANZA)*SHASTA	633-39	HRS	65.7	65.3	2.0	750	725	8 P-MTIME&BCRGR	
861524	(AZTECA67*ANZA)*SHASTA	633-43	HRS	66.5	65.5	2.1	750	688	5 P-MTIME&BCRGR	
861525	(AZTECA67*ANZA)*SHASTA	633-44	HRS	66.0	65.6	2.5	725	700	6 P-MTIME&BCRGR	

COMMENTS: Yecora Rojo was atypical in bread volume and crumb grain. The experimental lines were judged accordingly with several (footnoted) as equal or better than Yecora Rojo.

Q = Questionable; P = Poor





NURSCO 43

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861526	(ANZA*166R)*(ANZA*GAINES)	657-12	HRS	64.3	71.7	0.34	89.3	10.5	64.2	6M
861527	YECORA ROJO (C1017414)	657-21	HRS	62.7	69.5	0.38	85.2	11.1	65.1	6H
861528	((C113232*R50)*ANZA)*YECORA ROJO	<u>6/</u> 657-31	HRS	62.5	68.6	0.42	81.9	10.3	63.5	4H
861529	ANZA*SCOUT66	657-42	HRS	62.2	72.3	0.34	90.0	11.1	63.5	2H
861530	ANZA*JUSTIN	657-44	HRS	63.0	70.6	0.36	87.4	11.0	63.0	2H
861531	(WW 31*4*TRANSEC)*ANZA	657-50	HWS	64.5	72.0	0.37	88.2	9.8	61.7	3M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861526	(ANZA*166R)*(ANZA*GAINES)	657-12	HRS	65.4	65.9	2.6	815	846	6 Q-MTIME, LVOL&BCRGR	
861527	YECORA ROJO (C1017414)	657-21	HRS	66.9	66.8	4.6	870	864	4	
861528	((C113232*R50)*ANZA)*YECORA ROJO	657-31	HRS	64.5	65.2	2.8	815	858	4 Q-FYELD	
861529	ANZA*SCOUT66	657-42	HRS	65.3	65.2	2.2	925	919	5 P-MTIME Q-BCRGR	
861530	ANZA*JUSTIN	657-44	HRS	64.7	64.7	2.4	800	800	6 P-LVOL&BCRGR	
861531	(WW 31*4*TRANSEC)*ANZA	657-50	HWS	62.2	63.4	2.1	805	879	8 P-MTIME&BCRGR	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Selection No. 657-31 is equal to Yecora Rojo, but is questionable in flour yield. All other selections are questionable to poor in major bread baking properties.

Q = Questionable; P = Poor



NURSCO 44

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861532	(WW31*4*TRANSEC)*ANZA	669-19	HWS	64.1	72.3	0.36	89.1	10.1	62.7	3M
861533	ANZA (C1015284)	669-20	HRS	64.6	73.0	0.37	89.1	9.0	59.7	2M
861534	YECORA ROJO (C1017414)	669-21	HRS	62.1	69.6	0.36	86.1	10.5	63.4	2H
861535	ANZA*SCOUT66	669-34	HRS	61.6	69.1	0.43	82.3	12.0	65.7	5H
861536	166R*2*JUSTIN	669-36	HRS	65.1	69.8	0.34	87.6	12.0	63.7	3H
861537	(JUSTIN*2*SC66)*TANOR171	669-44	HRS	64.1	71.3	0.31	90.8	11.8	62.9	3H
861538	PHOENIX, WW33	669-50	HRS	64.8	71.9	0.38	87.7	9.7	61.0	3M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861532	(WW31*4*TRANSEC)*ANZA	669-19	HWS	63.5	64.4	1.9	815	871	6	
861533	ANZA (C1015284)	669-20	HRS	59.4	61.4	1.7	660	784	9	
861534	YECORA ROJO (C1017414)	669-21	HRS	64.6	65.1	2.3	755	786	7	
861535	ANZA*SCOUT66	669-34	HRS	68.4	67.4	3.7	855	793	3	
861536	166R*2*JUSTIN	669-36	HRS	66.4	65.4	2.3	815	753	6	
861537	(JUSTIN*2*SC66)*TANOR171	669-44	HRS	65.4	64.6	2.5	805	755	6	
861538	PHOENIX, WW33	669-50	HRS	61.4	62.7	2.1	800	881	4	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: All of these selections have poor dough mixing properties and accompanied heavy bread crumb grain. None can be rated as satisfactory for hard red wheat.



NURSCO 45

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	CODI	CODIC	RMKS
					1/			1/	3/			4/	
861539	(BC60*CALIDAD)*ANZA	671-8	CLUB	64.7	71.1	0.43	84.3	9.4	56.1	3M	8.71	8.74	Q-CODI
861540	(BC60*CALIDAD)*ANZA	6/ 671-11	CLUB	63.5	71.4	0.37	88.4	9.7	56.1	2M	8.92	8.97	
861541	(BC60*CALIDAD)*ANZA	6/ 671-12	CLUB	63.3	71.6	0.40	86.8	9.2	56.1	2M	9.00	9.01	
861542	(BC60*CALIDAD)*ANZA	671-13	CLUB	64.7	70.7	0.40	85.8	8.9	58.4	3M	8.84	8.83	Q-FYELD&CODI
861543	(BC60*CALIDAD)*ANZA	6/ 671-15	CLUB	64.1	72.6	0.39	88.5	9.5	57.9	2M	8.91	8.95	
861544	(BC60*CALIDAD)*ANZA	671-16	CLUB	64.3	68.6	0.44	80.3	9.4	57.9	2M	8.96	8.99	P-FYELD
861545	(BC60*CALIDAD)*ANZA	671-17	CLUB	61.8	69.0	0.44	80.8	9.5	58.6	2M	8.72	8.76	P-FYELD&CODI
861546	70W 10-19	671-20	CLUB	64.4	69.7	0.39	85.3	9.5	56.8	2M	9.02	9.06	Q-FYELD
861547	ANZA (C1015284)	671-21	HRS	64.8	72.8	0.36	89.4	9.0	58.7	2M	8.62	8.62	
861548	((221*166)*2*VR)*(70W 10-19*ANZA)	671-23	SWS	64.1	73.1	0.44	86.3	8.2	55.2	2M	8.65	8.56	P-CODI
861549	BLUEBAART RAD 500-3-1*ANZA	6/ 671-24	SWS	61.5	72.3	0.42	86.2	9.0	57.8	3M	9.29	9.29	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 9% Protein.4/ Observed Values Corrected to 9% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Several of these selections had low flour yield and/or high flour ash, particularly for traditional club wheat standards. Others footnoted are promising.

Q = Questionable; P = Poor





NURSCO 46

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	CODI	CODIC 4/	RMKS
861550	((221*166)*2*YR)*(70W 10-19*ANZA)	6/ 672-2	CLUB	63.1	71.1	0.39	86.9	8.8	55.0	2M	8.89	8.87	
861551	((221*166)*2*YR)*(70W 10-19*ANZA)	6/ 672-3	CLUB	64.1	72.0	0.42	86.3	8.7	54.7	2M	9.07	9.05	
861552	((221*166)*2*YR)*(70W 10-19*ANZA)	6/ 672-4	CLUB	63.8	71.1	0.40	86.3	8.8	55.0	2M	9.02	9.01	
861553	((221*166)*2*YR)*(70W 10-19*ANZA)	6/ 672-11	CLUB	64.3	71.7	0.38	88.3	8.7	54.1	2M	9.01	8.99	
861554	((221*166)*2*YR)*(70W 10-19*ANZA)	672-12	CLUB	60.1	69.1	0.41	83.2	8.4	54.5	2M	9.14	9.09	Q-FYELD
861555	((221*166)*2*YR)*(70W 10-19*ANZA)	5/ 672-15	CLUB	62.9	71.8	0.40	87.0	8.7	53.2	2M	9.36	9.34	
861556	70W 10-19	672-17	CLUB	63.2	68.9	0.43	81.3	8.4	56.0	6L	8.81	8.77	Q-FYELD&CODI
861557	ANZA (C1015284)	672-18	HRS	64.5	72.7	0.37	89.0	9.2	57.0	2M	8.62	8.64	
861558	((221*166)*2*YR)*(70W 10-19*ANZA)	6/ 672-21	CLUB	64.1	69.4	0.39	84.4	9.5	54.9	2M	9.20	9.24	Q-FYELD
861559	((221*166)*2*YR)*(70W 10-19*ANZA)	5/ 672-22	CLUB	65.0	71.4	0.35	90.0	9.1	54.5	2M	9.02	9.03	
861560	((221*166)*2*YR)*(70W 10-19*ANZA)	5/ 672-27	CLUB	65.3	72.5	0.42	86.5	9.6	52.7	2M	9.01	9.06	
861561	((221*166)*2*YR)*(70W 10-19*ANZA)	672-31	CLUB	63.2	71.4	0.37	88.5	8.0	54.8	3L	8.71	8.64	P-CODI
861562	((221*166)*2*YR)*(70W 10-19*ANZA)	672-32	CLUB	62.7	70.3	0.39	85.7	8.5	54.0	2M	8.86	8.83	Q-CODI
861563	((221*166)*2*YR)*(70W 10-19*ANZA)	672-34	CLUB	63.4	72.2	0.40	87.8	8.2	55.0	3M	8.87	8.82	HARD Q-CODI
861564	((221*166)*2*YR)*(70W 10-19*ANZA)	672-35	CLUB	62.8	69.9	0.40	84.4	8.2	54.1	2M	8.99	8.93	Q-FYELD
861565	((221*166)*2*SHASTA)*(70W 10-19*ANZA)	672-37	CLUB	64.6	69.5	0.37	86.1	9.4	54.4	2M	8.40	8.43	HARD P-FYELD
861566	((221*166)*2*SHASTA)*(70W 10-19*ANZA)	672-42	CLUB	63.3	68.0	0.36	84.8	8.0	56.3	3M	9.15	9.08	HARD P-FYELD
861567	((BC60*CAL)*2*ANZA)*(70W 10-19*ANZA)	672-43	CLUB	60.1	66.8	0.38	82.1	8.3	55.7	3M	8.90	8.85	HARD P-FYELD
861568	((BC60*CAL)*ANZA)*2*SHASTA*(70W 10-19	672-47	CLUB	60.1	67.7	0.37	83.7	8.5	55.2	4L	8.95	8.91	HARD P-FYELD
861569	((BC60*CAL)*ANZA)*2*SHASTA*(70W 10-19	672-48	HWS	61.2	66.5	0.35	83.5	8.9	56.1	2M	8.76	8.75	P-FYELD&CODI
861570	((BC60*CAL)*ANZA)*2*SHASTA*(70W 10-19	6672-49	CLUB	63.5	70.5	0.38	86.6	9.5	53.4	2M	9.05	9.09	
861571	((BC60*CAL)*ANZA)*2*SHASTA*(70W 10-19	6672-50	CLUB	63.4	69.4	0.37	85.6	8.8	53.7	3M	8.91	8.90	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Many of these selections carried hard endosperm characteristics. Several had poor to questionable cookie spread. See "Remarks" for deficiencies. Selections 672-15, 22, and 27 are quite good in overall properties.

Q = Questionable; P = Poor



NURSCO 47

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
861572	(BC60*CAL)*2*ANZA*(70W 10-19*ANZA)	6/673-1	HWS	62.9	71.1	0.38	86.8	10.3	63.6	8M
861573	(R37*CHL121)*(KAL*BB)	673-3	HRS	63.9	69.1	0.37	85.1	11.6	64.4	5H
861574	(KVZ*BVHO'S)*(KAL*BB)	673-4	HRS	64.0	70.5	0.37	86.9	11.0	62.3	3M
861575	WOP'S**AV*(KAL*BB)	6/673-5	HRS	64.5	70.2	0.34	88.0	10.0	62.6	3H
861576	(BB*CN0)*((INIA*SOTY)*SPRW'S)*PVN'S	6/673-6	HWS	64.7	69.6	0.39	84.7	10.5	65.4	5H
861577	(BB*CHA)*FKN*2*(FR*(KAD*GB))	673-9	HWS	64.9	69.3	0.39	84.6	10.5	63.1	2H
861578	(SC66*PI190982)*166*YEC ROJO	6/673-11	HRS	61.3	67.0	0.38	82.3	10.9	65.4	4H
861579	(SC66*PI190982)*166*YEC ROJO	673-12	HRS	60.8	69.3	0.33	87.3	11.8	63.0	2H
861580	(SC66*PI190982)*166*YEC ROJO	6/673-15	HRS	62.0	67.5	0.36	84.0	11.6	65.1	3H
861581	(SC66*PI190982)*166*YEC ROJO	6/673-16	HRS	61.0	68.8	0.38	84.2	10.8	64.0	5H
861582	(SC66*PI190982)*166*YEC ROJO	6/673-17	HRS	63.1	68.5	0.35	85.8	11.7	65.0	4H
861583	ANZA (CI015284)	673-20	HRS	63.9	72.8	0.36	89.8	9.0	61.4	2M
861584	YECORA ROJO (CI017414)	673-21	HRS	63.4	68.8	0.37	84.9	10.1	63.9	5H
861585	(JUSTIN*SC66)*YEC ROJO	6/673-22	HWS	62.5	68.6	0.42	82.2	10.5	64.0	5H
861586	(JUSTIN*SC66)*YEC ROJO	6/673-24	HRS	61.6	71.4	0.37	87.8	11.4	64.8	5H
861587	(JUSTIN*SC66)*YEC ROJO	6/673-25	HRS	61.7	70.7	0.38	86.4	10.4	63.6	6M
861588	(JUSTIN*SC66)*YEC ROJO	6/673-26	HRS	61.9	69.4	0.38	85.2	11.3	64.2	4H
861589	(HUELQUEN*166R)*YEC ROJO	673-29	HRS	64.3	69.1	0.36	85.6	11.9	64.6	4H
861590	(HUELQUEN*166R)*YEC ROJO	673-33	HRS	63.6	71.0	0.36	87.5	11.7	65.2	3H
861591	(HUELQUEN*166R)*YEC ROJO	673-34	HRS	63.5	72.5	0.36	89.4	11.5	64.5	3H
861592	(HUELQUEN*166R)*YEC ROJO	673-35	HRS	62.9	71.3	0.35	88.6	11.5	64.3	5H
861593	(HUELQUEN*166R)*YEC ROJO	673-37	HRS	64.6	70.2	0.32	88.8	12.0	65.7	4H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 47

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861572	(BC60*CAL)*2*ANZA*(70W 10-19*ANZA)	673-1	HWS	64.6	65.3	4.4	815	858	3	3 P-LVOL&BCRGR
861573	(R37*GHL121)*(KAL*BB)	673-3	HRS	66.7	66.1	3.4	750	713	6	6 P-MTIME, LVOL&BCRGR
861574	(KVZ*BVHO)*S*(KAL*BB)	673-4	HRS	64.0	64.0	2.0	680	680	8	8 Q-BCRGR
861575	WOP S*AV*(KAL*BB)	673-5	HRS	63.3	64.3	2.5	780	842	2	
861576	(BB*CNO)*((INIA*SOTY)*SPRW'S)*PVS'	673-6	HWS	66.6	67.1	3.9	810	841	4	
861577	(BB*CHA)*FKN*2*(FR*(KAD*GB))	673-9	HWS	64.3	64.8	2.3	715	746	6	6 P-MTIME, LVOL&BCRGR
861578	(SC66*PI190982)*166*YEC ROJO	673-11	HRS	66.5	66.6	2.4	835	841	3	3 Q-MTIME
861579	(SC66*PI190982)*166*YEC ROJO	673-12	HRS	65.5	64.7	1.8	840	790	3	3 P-MTIME&LVOL
861580	(SC66*PI190982)*166*YEC ROJO	673-15	HRS	67.4	66.8	2.5	910	873	3	3 Q-FYELD
861581	(SC66*PI190982)*166*YEC ROJO	673-16	HRS	65.5	65.7	3.5	835	847	3	
861582	(SC66*PI190982)*166*YEC ROJO	673-17	HRS	67.4	66.7	3.0	865	822	2	
861583	ANZA (CI015284)	673-20	HRS	61.1	63.1	1.5	740	864	9	
861584	YECORA ROJO (CI017414)	673-21	HRS	64.7	65.6	4.8	785	841	3	
861585	(JUSTIN*SC66)*YEC ROJO	673-22	HWS	65.2	65.7	4.2	820	851	3	
861586	(JUSTIN*SC66)*YEC ROJO	673-24	HRS	66.9	66.5	3.6	855	830	3	
861587	(JUSTIN*SC66)*YEC ROJO	673-25	HRS	64.7	65.3	3.6	820	857	4	4 Q-BCRGR
861588	(JUSTIN*SC66)*YEC ROJO	673-26	HRS	66.2	65.9	3.2	805	786	3	3 Q-LVOL
861589	(HUELQUEN*166R)*YEC ROJO	673-29	HRS	67.2	66.3	2.9	870	814	4	4 Q-LVOL&BCRGR
861590	(HUELQUEN*166R)*YEC ROJO	673-33	HRS	67.6	66.9	2.5	850	807	4	4 Q-LVOL&BCRGR
861591	(HUELQUEN*166R)*YEC ROJO	673-34	HRS	66.7	66.2	3.1	845	814	4	4 Q-LVOL&BCRGR
861592	(HUELQUEN*166R)*YEC ROJO	673-35	HRS	66.5	66.0	4.1	805	774	4	4 Q-LVOL&BCRGR
861593	(HUELQUEN*166R)*YEC ROJO	673-37	HRS	68.4	67.4	2.9	865	803	6	6 P-BCRGR

COMMENTS: This group of crosses has several promising selections as footnoted. See "Remarks" for marginal deficiencies of some of the selections footnoted as promising, and major deficiencies of others.

P = Poor; Q = Questionable





NURSCO 48

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
861594	YECORA ROJO (C1017414)	674-21	HRS	63.8	72.0	0.38	87.9	10.2	62.3	8M
861595	(MY64*R50)*166, UC375*YECORA ROJO	674-23	HRS	63.7	70.6	0.37	87.0	9.8	63.2	8M
861596	(TOB66*R50)*166, UC348*YECORA ROJO	6/ 674-25	HRS	62.5	70.1	0.38	86.0	10.2	63.4	4M
861597	(TOB66*R50)*166, UC348*YECORA ROJO	6/ 674-27	HRS	63.5	70.5	0.38	86.0	10.9	61.3	3H
861598	(LB70*ANZA), UC364*YECORA ROJO	6/ 674-35	HRS	61.9	71.5	0.37	87.9	10.1	63.4	4H
861599	(BB'S'*ANZA), UC291*YECORA ROJO	6/ 674-43	HRS	63.8	70.7	0.37	87.1	9.9	62.8	5H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
861594	YECORA ROJO (C1017414)	674-21	HRS	64.2	64.0	4.5	750	738	4	4
861595	(MY64*R50)*166, UC375*YECORA ROJO	674-23	HRS	64.7	64.9	4.3	700	712	5	Q-BCRGR
861596	(TOB66*R50)*166, UC348*YECORA ROJO	674-25	HRS	65.3	65.1	2.6	735	723	4	4
861597	(TOB66*R50)*166, UC348*YECORA ROJO	674-27	HRS	63.9	63.0	3.1	750	694	4	Q-LVOL
861598	(LB70*ANZA), UC364*YECORA ROJO	674-35	HRS	65.2	65.1	3.3	825	819	3	3
861599	(BB'S'*ANZA), UC291*YECORA ROJO	674-43	HRS	64.4	64.5	3.4	765	771	4	4

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: All selections appear equal to Yecora Rojo with the exception of ID No. 674-23. Yecora Rojo, however, was heavier in bread crumb grain than normal, so may be some increased margin for error.

Q = Questionable





HRW REPLICATED ADVANCED NURSERY

NURSCO 49

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861600 WANSER		87HRRAN1	HRW	64.2	68.7	0.41	79.9	9.8	60.3	8M
861601 STEPHENS		87HRRAN2	SWW	62.2	68.9	0.38	79.5	8.8	59.0	3L
861602 CENTURA		87HRRAN3	HRW	64.1	67.6	0.36	79.3	9.7	62.2	8M
861603 ORCR8717		87HRELT17	HRW	61.3	70.1	0.43	80.3	10.1	62.5	8M
861604 ORCR8718		<u>6/</u> 87HRELT18	HRW	64.4	72.2	0.39	86.0	10.1	61.2	8M
861605 OR8300027		<u>6/</u> 87HRELT19	HRW	64.2	70.0	0.36	84.1	10.5	63.1	8M
861606 OR8300282		<u>6/</u> 87HRELT20	HRW	60.5	68.6	0.48	75.4	11.4	61.8	4M
861607 OR8300821		87HRELT21	HRW	65.2	62.5	0.39	70.4	10.7	64.5	8M
861608 OR8301078		87HRRAN5	HRW	63.0	69.5	0.35	84.9	9.0	61.6	4M
861609 OR8301134		<u>6/</u> 87HRELT22	HRW	64.5	68.2	0.38	81.3	9.5	63.5	8M
861610 OR8301455		87HRELT23	HRW	61.6	63.3	0.46	69.5	8.7	61.4	8L
861611 OR8301482		87HRELT24	HRW	65.0	66.8	0.39	78.0	9.3	62.1	8L
861612 OR8301585		<u>6/</u> 87HRRAN6	HRW	62.0	67.6	0.34	81.3	9.5	60.6	6M
861613 OR8301962		87HRRAN7	HRW	61.8	66.3	0.49	71.5	9.6	63.0	7M
861614 OR8302038		87HRELT25	HRW	62.9	66.5	0.48	72.2	10.5	61.4	8M
861615 OR8303372		<u>6/</u> 87HRRAN7	HRW	60.2	68.7	0.47	76.0	10.5	62.4	6M
861616 OR8302306		87HRELT26	HRW	62.9	72.6	0.42	84.8	9.4	57.9	3M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 49

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861600	WANSER	87HRRAN1	HRW	61.8	62.0	4.3	715	729	6	
861601	STEPHENS	87HRRAN2	SWW	58.0	59.2	2.3	700	772	9	
861602	CENTURA	87HRRAN3	HRW	63.6	63.9	5.5	680	699	6	
861603	ORCR8717	87HRELT17	HRW	64.3	64.2	6.7	660	654	8	
861604	ORCR8718	87HRELT18	HRW	63.0	62.9	5.1	735	729	5	≥ Wanser
861605	OR8300027	87HRELT19	HRW	65.3	64.8	5.0	775	744	4	≥ Wanser
861606	OR8300282	87HRELT20	HRW	64.9	63.5	2.6	850	763	4	Wanser
861607	OR8300821	87HRELT21	HRW	66.9	66.2	5.1	640	597	8P-LVOL,BCRGR&FYELD	
861608	OR8301078	87HRRAN5	HRW	62.3	63.3	3.0	555	617	9P-LVOL&BCRGR	
861609	OR8301134	87HRELT22	HRW	64.7	65.2	5.3	675	706	6= Wanser	
861610	OR8301455	87HRELT23	HRW	61.8	63.1	4.8	610	691	8 P-LVOL,BCRGR&FYELD	
861611	OR8301482	87HRELT24	HRW	63.1	63.8	4.3	570	613	8 P-LVOL,BCRGR&FYELD	
861612	OR8301585	87HRRAN6	HRW	61.8	62.3	3.1	760	791	5 ≥ Wanser	
861613	OR8301962	87HRRAN7	HRW	64.3	64.7	3.7	690	715	9 P-BCRGR&FYELD	
861614	OR8302038	87HRELT25	HRW	63.6	63.1	5.5	795	764	8 P-BCRGR&FYELD	
861615	OR8303372	87HRRAN7	HRW	64.6	64.1	3.7	805	774	5 ≥ Wanser	
861616	OR8302306	87HRELT26	HRW	59.0	59.6	2.4	730	767	8 P-MTIME&BCRGR	

COMMENTS: This nursery of wheats were below normal expected values for both milling and baking characteristics as observed with the check varieties (Wanser and Centura). Experimental selections were judged accordingly. See "Remarks".

P = Poor



NURSCO 50

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
861617	YOLO*WS1877	688-2	HRS	65.1	72.0	0.37	88.1	10.0	63.3	6M
861618	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-8	HRS	64.2	70.1	0.34	87.9	11.2	63.1	2H
861619	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-9	HRS	63.7	69.7	0.38	85.3	10.4	64.1	4H
861620	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-11	HRS	65.0	68.8	0.32	87.7	10.6	64.2	3H
861621	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-12	HRS	64.7	70.5	0.34	88.2	10.6	63.7	5H
861622	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-15	HRS	63.8	67.6	0.34	85.1	11.6	62.1	1H
861623	YECORA ROJO (C1017414)	688-21	HRS	62.9	70.0	0.40	84.8	11.0	64.7	5H
861624	(C113232*R50)*ANZA, UC355*WS1877.	688-22	HRS	64.9	69.6	0.33	87.6	11.1	62.9	4H
861625	(I-CNO*CAL)*ANZA, YECORA ROJO	688-30	HRS	63.9	70.8	0.38	86.3	10.3	64.6	5H
861626	(I-CNO*CAL)*ANZA, YECORA ROJO	688-31	HRS	63.4	69.2	0.44	81.5	9.4	64.1	8M
861627	(I-CNO*CAL)*ANZA, YECORA ROJO	688-32	HRS	63.2	69.9	0.38	85.5	11.0	66.0	6H
861628	(I-CNO*CAL)*ANZA, YECORA ROJO	688-37	HRS	64.2	69.5	0.34	87.4	10.4	64.2	4M
861629	(I-CNO*CAL)*ANZA, YECORA ROJO	688-38	HRS	65.3	71.5	0.36	88.3	10.9	65.1	3H
861630	(I-CNO*CAL)*ANZA, WS1877	688-39	HRS	64.6	68.5	0.39	83.7	10.3	64.5	6M
861631	(I-CNO*CAL)*ANZA, WS1877	688-42	HRS	67.1	71.0	0.35	88.3	10.5	63.4	6M
861632	(I-CNO*CAL)*ANZA, WS1877	688-43	HRS	64.3	68.9	0.34	86.3	10.5	63.5	6M
861634	(I-CNO*CAL)*ANZA, WS1877	688-46	HRS	65.4	70.1	0.37	86.1	9.8	64.2	6M
861635	(I-CNO*CAL)*ANZA, WS1877	688-47	HRS	65.6	71.2	0.36	88.1	10.1	63.2	6M
861636	(I-CNO*CAL)*ANZA, WS1877	688-48	HRS	65.7	72.0	0.34	89.6	10.7	63.8	3H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 50

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861617	YOLO*WS1877	688-2	HRS	64.0	65.0	3.3	760	822	6 P-BCRGR	
861618	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-8	HRS	65.0	64.8	2.2	865	853	4 Q-MTIME	
861619	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-9	HRS	65.2	65.8	3.2	800	837	3	
861620	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-11	HRS	65.5	65.9	2.4	825	850	3 Q-MTIME&FYELD	
861621	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-12	HRS	65.0	65.4	4.0	825	850	4	
861622	(C113232*R50)*ANZA, UC355*YECORA ROJO	688-15	HRS	64.4	63.8	1.5	885	848	6 P-MTIME&BCRGR	
861623	YECORA ROJO (C1017414)	688-21	HRS	66.4	66.4	4.3	790	790	4	
861624	(C113232*R50)*ANZA, UC355*WS1877	688-22	HRS	64.7	64.6	3.5	785	779	4	
861625	(I-CNO*CAL)*ANZA*YECORA ROJO	688-30	HRS	65.6	66.3	4.4	785	828	4	
861626	(I-CNO*CAL)*ANZA*YECORA ROJO	688-31	HRS	64.2	65.8	4.6	720	819	6 P-BCRGR	
861627	(I-CNO*CAL)*ANZA*YECORA ROJO	688-32	HRS	67.7	67.7	4.8	840	840	4	
861628	(I-CNO*CAL)*ANZA*YECORA ROJO	688-37	HRS	65.3	65.9	2.8	750	787	4	
861629	(I-CNO*CAL)*ANZA*YECORA ROJO	688-38	HRS	66.7	66.8	2.9	920	926	2	
861630	(I-CNO*CAL)*ANZA*WS1877	688-39	HRS	65.5	66.2	3.5	870	913	4 Q-FYELD	
861631	(I-CNO*CAL)*ANZA*WS1877	688-42	HRS	64.7	65.2	3.2	780	811	4	
861632	(I-CNO*CAL)*ANZA*WS1877	688-43	HRS	64.8	65.3	2.9	835	866	3	
861634	(I-CNO*CAL)*ANZA*WS1877	688-46	HRS	64.7	65.9	3.2	750	824	7 P-BCRGR	
861635	(I-CNO*CAL)*ANZA*WS1877	688-47	HRS	64.0	64.9	3.5	775	831	5 Q-BCRGR	
861636	(I-CNO*CAL)*ANZA*WS1877	688-48	HRS	65.2	65.5	3.2	805	824	5 Q-BCRGR	

COMMENTS: Several of these selections appear equal to or better than Yecora Rojo in overall quality. Selection #688-38 is excellent and noteworthy in quality characteristics.

P = Poor; Q = Questionable



NURSCO 51

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861637	(I-CNO*CAL)*ANZA**VERY S	6/ 689-2	HRS	64.0	71.1	0.38	87.0	10.4	61.1	6M
861638	(I-CNO*CAL)*ANZA**VERY S	6/ 689-3	HRS	64.1	71.3	0.42	84.8	10.9	61.5	6M
861639	(I-CNO*CAL)*ANZA**VERY S	6/ 689-5	HRS	65.2	71.6	0.39	86.5	10.9	61.4	3H
861640	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	6/ 689-10	HRS	63.5	71.4	0.44	84.1	10.1	60.2	6M
861641	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	6/ 689-11	HRS	64.8	72.4	0.36	89.0	10.1	60.4	4M
861642	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	6/ 689-12	HRS	63.1	72.3	0.48	82.7	9.9	62.4	4M
861643	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-14	HRS	63.3	70.6	0.43	83.5	9.6	62.3	6M
861644	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-16	HRS	63.4	72.2	0.34	90.0	10.5	60.4	4M
861645	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-17	HRS	61.1	68.2	0.47	78.8	9.9	62.9	6M
861646	YECORA ROJO (C1017414)	689-22	HRS	63.1	69.8	0.38	85.5	10.9	62.0	8M
861647	(I-CNO*CAL)*ANZA**WS1877	689-24	HRS	62.5	69.4	0.49	79.5	10.6	61.6	2H
861648	(I-CNO*CAL)*ANZA, UC446*VEERY'S	689-31	HRS	61.7	67.0	0.47	78.0	10.3	61.4	6M
861649	(I-CNO*CAL)*ANZA, UC446*VEERY'S	689-33	HRS	64.4	69.7	0.45	81.5	10.7	63.3	6M
861650	(INIA*ANZA), UC351*WA1877	689-36	HRS	65.5	68.6	0.37	84.7	10.3	61.5	8M
861651	(INIA*ANZA), UC351*YECORA ROJO	689-37	HRS	65.8	71.3	0.34	89.3	9.7	62.1	4M
861652	(INIA*ANZA)*VEERY S	689-40	HRS	64.3	69.2	0.36	85.7	9.8	61.2	8M
861653	(INIA*ANZA)*VEERY S	689-48	HRS	63.6	66.7	0.49	76.6	9.9	61.1	4M
861654	(INIA*ANZA)*VEERY S	689-49	HRS	64.9	70.1	0.31	89.4	9.8	59.5	3M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 51

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861637	(I-CNO*CAL)*ANZA**VERY S	689-2	HRS	63.2	62.8	3.2	855	830	4	
861638	(I-CNO*CAL)*ANZA**VERY S	689-3	HRS	64.1	63.2	2.9	835	779	4	
861639	(I-CNO*CAL)*ANZA**VERY S	689-5	HRS	64.0	63.1	2.8	870	814	4	
861640	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-10	HRS	62.0	61.9	3.1	850	844	3	
861641	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-11	HRS	62.2	62.1	2.1	820	814	4 Q-MTIME	
861642	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-12	HRS	64.0	64.1	2.5	815	821	4 Q-MTIME	
861643	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-14	HRS	63.6	64.0	3.1	785	810	5 Q-BCRGR	
861644	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-16	HRS	62.6	62.1	2.5	830	799	5 Q-MTIME&BCRGR	
861645	(I-CNO*CAL)*ANZA, UC446*YECORA ROJO	689-17	HRS	64.5	64.6	3.4	750	756	6 P-BCRGR	
861646	YECORA ROJO (CI017414)	689-22	HRS	64.6	63.7	4.1	840	784	4	
861647	(I-CNO*CAL)*ANZA**WS1877	689-24	HRS	63.9	63.3	2.0	775	738	8 P-MTIME, LVOL&BCRGR	
861648	(I-CNO*CAL)*ANZA, UC446*VEERY'S	689-31	HRS	63.4	63.1	3.3	750	731	6 P-LVOL&BCRGR	
861649	(I-CNO*CAL)*ANZA, UC446*VEERY'S	689-33	HRS	65.7	65.0	3.9	750	707	4 Q-LVOL	
861650	(INIA*ANZA), UC351*WA1877	689-36	HRS	63.5	63.2	4.3	720	701	6 P-LVOL&BCRGR	
861651	(INIA*ANZA), UC351*YECORA ROJO	689-37	HRS	63.5	63.8	2.5	750	769	6 P-LVOL&BCRGR	
861652	(INIA*ANZA)*VEERY S	689-40	HRS	62.7	62.9	3.5	705	717	6 P-LVOL&BCRGR	
861653	(INIA*ANZA)*VEERY S	689-48	HRS	62.7	62.8	3.0	660	666	8 P-LVOL&BCRGR	
861654	(INIA*ANZA)*VEERY S	689-49	HRS	61.0	61.2	1.9	700	712	6 P-MTIME, LVOL&BCRGR	

COMMENTS: See "Remarks" for deficiencies of selections not footnoted as promising.

Q = Questionable; P = Poor



NURSCO 52

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
861655	(C113232*R50)*ANZA™, UC360*WS1877	695-10	HRS	64.9	69.8	0.38	85.3	10.5	62.0	3H
861656	YECORA ROJO (C1017414)	695-21	HRS	63.8	71.0	0.38	86.9	10.4	61.9	8M
861657	(C113232*R50)*ANZA™, UC360*VEERY™S'	695-39	HRS	65.4	72.0	0.34	89.6	10.3	63.6	3H
861658	(C113232*R50)*ANZA™, UC295*YECORA ROJO	695-45	HRS	61.8	71.8	0.40	86.5	10.7	62.3	3M
861659	(C113232*R50)*ANZA™, UC295*YECORA ROJO	695-49	HRS	64.3	71.6	0.39	86.8	10.2	62.7	6M
861660	(C113232*R50)*ANZA™, UC295*YECORA ROJO <u>6/</u> 695-50		HRS	65.9	73.2	0.36	90.1	10.6	62.6	6M
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861655	(C113232*R50)*ANZA™, UC360*WS1877	695-10	HRS	64.2	63.7	3.1	775	744	5 Q-BCRGR	
861656	YECORA ROJO (C1017414)	695-21	HRS	64.0	63.6	4.2	755	730	4	
861657	(C113232*R50)*ANZA™, UC360*VEERY™S'	695-39	HRS	65.6	65.3	2.8	800	781	5 Q-BCRGR	
861658	(C113232*R50)*ANZA™, UC295*YECORA ROJO	695-45	HRS	63.7	63.0	1.8	750	707	7 P-MTIME&BCRGR	
861659	(C113232*R50)*ANZA™, UC295*YECORA ROJO	695-49	HRS	64.6	64.4	3.3	785	773	5 Q-BCRGR	
861660	(C113232*R50)*ANZA™, UC295*YECORA ROJO	695-50	HRS	64.9	64.3	3.3	750	713	3	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 10% Protein.4/ Observed Values Corrected to 10% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Selection ID No. 695-50 is the only experimental line in this nursery with quality equal to or better than Yecora Rojo.

Q = Questionable; P = Poor





NURSCO 53

DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861661	(BB <sup>7</sup> S <sup>1</sup> *ANZA), UC291*YECORA ROJO	6/ 687-1	HRS	63.6	68.8	0.40	83.5	9.8	63.1	6M
861662	YOLO S * YECORA ROJO	687-11	HRS	63.5	73.0	0.36	90.0	11.5	63.8	2H
861663	YOLO S * YECORA ROJO	687-12	HRS	63.1	72.2	0.36	89.1	11.9	62.9	2H
861664	YOLO S * YECORA ROJO	687-14	HRS	62.7	68.4	0.37	84.6	11.0	63.8	2H
861665	YOLO S * YECORA ROJO	687-15	HRS	62.0	68.2	0.36	84.8	11.0	65.9	3H
861666	YOLO S * YECORA ROJO	687-19	HRS	63.6	70.7	0.37	86.8	10.4	63.1	6M
861667	YECORA ROJO (C1017414)	687-21	HRS	62.7	70.6	0.37	86.8	11.3	64.0	5H
861668	YOLO S * YECORA ROJO	6/ 687-22	HRS	63.0	71.4	0.38	87.2	11.3	63.5	3H
861669	YOLO * YECORA ROJO	687-27	HRS	63.1	71.1	0.41	85.1	10.3	63.6	6M
861670	YOLO * YECORA ROJO	6/ 687-30	HRS	60.1	71.7	0.40	86.3	10.7	62.8	6M
861671	YOLO * YECORA ROJO	6/ 687-36	HRS	61.5	70.4	0.39	85.6	10.7	63.2	4M
861672	YOLO * YECORA ROJO	6/ 687-37	HRS	62.8	71.0	0.39	86.3	11.7	64.0	4H
861673	YOLO * YECORA ROJO	687-40	HRS	63.0	71.0	0.38	86.6	10.2	62.8	8M
861674	YOLO * WS1877	687-41	HRS	61.0	68.3	0.40	83.0	10.7	65.3	6M
861675	YOLO * WS1877	687-45	HRS	60.1	69.3	0.38	85.0	10.7	65.8	6M
861676	YOLO * WS1877	687-46	HRS	64.1	67.3	0.43	80.1	11.0	64.8	6M
861677	YOLO * WS1877	687-48	HRS	64.2	72.3	0.38	88.0	11.8	64.1	3H
861678	YOLO * WS1877	687-49	HRS	61.9	69.8	0.38	85.5	11.3	64.9	3H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



DAVIS, CA

C.O. QUALSET

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861661	(BB <sup>T</sup> S'ANZA), UC291*YECORA ROJO	687-1	HRS	63.6	64.8	3.2	760	834	3Q-FYELD	
861662	YOLO S * YECORA ROJO	687-11	HRS	65.0	64.5	2.1	905	874	2P-MTIME	
861663	YOLO S * YECORA ROJO	687-12	HRS	65.5	64.6	1.7	890	834	4P-MTIME Q-BCRGR	
861664	YOLO S * YECORA ROJO	687-14	HRS	65.5	65.5	1.9	820	820	3P-MTIME	
861665	YOLO S * YECORA ROJO	687-15	HRS	67.6	67.6	2.3	845	845	5P-MTIME&BCRGR	
861666	YOLO S * YECORA ROJO	687-19	HRS	64.2	64.8	3.6	750	787	6P-LVOL&BCRGR	
861667	YECORA ROJO (C1017414)	687-21	HRS	66.0	65.7	4.0	820	801	3	
861668	YOLO S * YECORA ROJO	687-22	HRS	65.5	65.2	3.0	800	781	3	
861669	YOLO * YECORA ROJO	687-27	HRS	64.6	65.3	3.2	760	803	5P-BCRGR	
861670	YOLO * YECORA ROJO	687-30	HRS	64.2	64.5	3.2	875	894	3	
861671	YOLO * YECORA ROJO	687-36	HRS	63.6	63.9	2.4	830	849	3Q-MTIME	
861672	YOLO * YECORA ROJO	687-37	HRS	66.4	65.7	3.5	900	857	3	
861673	YOLO * YECORA ROJO	687-40	HRS	63.7	64.5	4.8	770	820	5P-BCRGR	
861674	YOLO * WS1877	687-41	HRS	66.7	67.0	3.6	760	779	4Q-BCRGR	
861675	YOLO * WS1877	687-45	HRS	67.2	67.5	3.6	815	834	5P-BCRGR	
861676	YOLO * WS1877	687-46	HRS	66.5	66.5	3.7	755	755	5P-LVOL&BCRGR	
861677	YOLO * WS1877	687-48	HRS	65.6	64.8	3.1	870	820	4Q-BCRGR	
861678	YOLO * WS1877	687-49	HRS	66.9	66.6	3.3	815	796	5P-BCRGR	

COMMENTS: Selections ID # 687-11 and 687-14 have acceptable loaf volumes and bread crumb baking quality but lack adequate dough mixing properties. See "Remarks" for deficiencies of other selections.

Q = Questionable; P = Poor



NURSCO 54

## KANSAS

LABNUM	VARIETY	IDNO	CLASS	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	FABS	FPEAK
					1/		1/	3/			
861679	CONTROL	86-801	HRW		0.41		11.2	65.2	5H	63.0	7.0
861680	EXP	6/ 86-802	HRW		0.41		11.6	65.7	5H	64.0	7.0
861681	EXP	5/ 86-803	HRW		0.41		11.8	66.3	5H	64.0	7.0
861682	CONTROL	86-804	HRW		0.41		12.4	64.1	4H	62.7	6.0
861683	EXP	86-805	HRW		0.41		13.9	61.2	2H	59.9	6.0
861684	CONTROL	86-806	HRW		0.41		12.0	64.9	6H	61.9	11.0
861685	EXP	6/ 86-806A	HRW		0.42		12.0	64.4	6H	60.9	11.5
861686	EXP	5/ 86-807	HRW		0.41		11.5	63.8	5H	61.6	7.5
861687	EXP	5/ 86-807A	HRW		0.42		11.7	64.2	5H	60.9	7.5

LABNUM	VARIETY	IDNO	CLASS	FSTAB	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
						3/			4/		
861679	CONTROL	86-801	HRW	11.0	66.1	66.9	4.2	855	905	3 Q-BCRGR	
861680	EXP	86-802	HRW	3.0	66.9	67.4	3.4	915	946	3 Q-BCRGR	
861681	EXP	86-803	HRW	2.5	67.8	68.0	4.0	870	882	3 Q-LVOL&BCRGR	
861682	CONTROL	86-804	HRW	3.0	66.1	65.8	3.3	880	861	3 Q-BCRGR	
861683	EXP	86-805	HRW	3.5	63.3	61.4	1.7	965	847	2 P-MTIME	
861684	CONTROL	86-806	HRW	2.5	66.6	66.6	5.1	945	945	3	
861685	EXP	86-806A	HRW	3.0	66.1	66.1	5.4	950	950	2	
861686	EXP	86-807	HRW	4.0	65.0	65.5	4.1	900	931	3	
861687	EXP	86-807A	HRW	3.0	65.9	65.9	4.1	920	920	3	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: These flours were baked and evaluated in cooperation with the Hard Red Winter Wheat Quality Council.





NURSCO 55

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH	MSCOR	FPROT		MABSC	CODI	CODIC MTYPE		RMKS
							1/	2/			3/	4/	
861688	STEPHENS	87SWRPN1	SWW	61.2	72.2	0.40	87.4	9.3	55.4	9.26	9.41	3M	
861689	STEPHENS	87SWRPN2	SWW	61.2	72.5	0.39	88.3	9.2	55.3	9.26	9.39	3M	
861690	OR8500152H	87SWRPN5	SWW	60.8	70.0	0.38	86.3	10.0	56.4	8.67	8.89	4M	Q-FYELD&CODI
861691	OR8503117H	5/87SWRPN6	SWW	60.8	74.4	0.37	92.3	6.7	55.3	9.30	9.16	1L	
861692	OR8500528P	87SWRPN7	SWW	64.8	73.1	0.35	91.7	8.6	55.7	8.57	8.64	3M	Q-CODI
861693	OR8504386P	6/87SWRPN8	SWW	58.8	73.0	0.39	89.3	6.5	52.9	9.17	9.01	2L	Q-CODI
861694	OR8501196P	87SWRPN9	SWW	58.8	67.9	0.37	84.2	6.5	51.4	9.66	9.50	8L	Low FYELD
861695	OR8502288H	5/87SWRPN10	SWW	62.4	73.7	0.36	91.9	7.3	53.5	9.59	9.51	2L	
861696	OR8500991P	87SWRPN11	SWW	58.0	69.7	0.40	84.5	6.8	54.4	9.29	9.16	4L	Q-FYELD
861697	OR8502852H	6/87SWRPN12	SWW	59.6	71.7	0.39	87.7	7.4	52.4	9.35	9.28	4L	
861698	OR8501113H	87SWRPN13	SWW	59.6	69.5	0.40	83.8	6.0	53.2	9.65	9.43	1L	Q-FYELD
861699	OR8500866P	87SWRPN14	SWW	64.4	72.7	0.35	91.3	6.5	57.3	9.00	8.84	2L	Q-CODI
861700	OR8500742P	6/87SWRPN15	SWW	62.4	71.0	0.35	89.3	7.1	51.8	9.42	9.33	1L	
861701	OR8500974P	6/87SWRPN16	SWW	63.2	71.3	0.37	88.2	7.0	53.4	9.25	9.14	2L	
861702	OR8505553P	6/87SWRPN17	SWW	60.0	72.7	0.38	89.3	5.9	54.7	9.57	9.34	3L	
861703	OR8503157H	6/87SWRPN18	SWW	62.0	71.2	0.40	86.5	6.6	52.8	9.26	9.11	1L	
861704	OR8504201P	6/87SWRPN19	SWW	60.0	72.1	0.37	89.1	6.1	52.9	9.41	9.20	2L	
861705	OR8501141H	6/87SWRPN20	SWW	61.6	73.2	0.39	89.3	6.6	54.7	9.44	9.28	2L	
861706	OR8501121P	87SWRPN21	SWW	58.4	68.7	0.38	84.1	6.5	54.0	9.42	9.26	2L	Low FYELD
861707	OR8505401P	6/87SWRPN22	SWW	61.6	73.3	0.37	91.0	7.4	53.7	9.17	9.11	2L	
861708	OR8505395P	6/87SWRPN23	SWW	60.4	72.8	0.36	91.1	6.6	52.7	9.26	9.11	2L	
861709	OR8503106H	87SWRPN24	SWW	63.6	72.5	0.45	84.7	5.7	56.3	8.75	8.50	3L	P-CODI
861710	OR8503556H	5/87SWRPN25	SWW	60.0	73.7	0.40	89.6	8.5	52.8	9.29	9.34	2M	
861711	OR8504111P	6/87SWRPN26	SWW	60.0	71.6	0.38	88.3	7.0	53.0	9.25	9.14	2L	
861712	OR8504315P	87SWRPN27	SWW	56.8	69.8	0.37	86.3	7.4	52.4	9.16	9.10	8L	Q-FYELD
861713	OR8500154H	87SWRPN28	SWW	62.8	68.4	0.37	84.7	9.5	57.0	8.71	8.88	4M	Q-FYELD&CODI
861714	OR8500911P	87SWRPN29	SWW	59.2	70.4	0.41	84.6	7.0	52.4	9.11	9.00	2L	Q-FYELD&CODI
861715	OR8505579P	6/87SWRPN30	SWW	58.0	71.6	0.44	84.0	8.6	53.4	9.10	9.17	3L	
861716	OR8505578P	6/87SWRPN31	SWW	59.2	71.7	0.44	84.6	7.3	52.7	9.31	9.24	2L	
861717	OR8503914P	6/87SWRPN32	SWW	61.2	72.2	0.41	87.0	7.5	51.3	9.41	9.36	8L	
861718	OR8500374H	6/87SWRPN33	SWW	61.6	73.4	0.41	88.7	9.6	51.4	8.90	9.08	2M	Q-CODI
861719	OR8504299P	6/87SWRPN34	SWW	59.2	72.1	0.44	85.2	8.0	53.9	9.16	9.16	3L	
861720	OR8503557H	6/87SWRPN35	SWW	59.2	72.9	0.43	86.8	7.6	52.5	9.31	9.27	2L	
861721	OR8504209P	87SWRPN36	SWW	61.2	69.3	0.42	82.3	8.5	54.1	9.25	9.30	3L	Low FYELD
861722	OR8501017P	87SWRPN37	SWW	61.6	72.2	0.39	88.2	8.0	51.5	9.11	9.11	1L	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 55

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	CODI	CODIC MTYPE RMKS			
											1/	3/	4/	
861723	OR8503517H	6/87SWRPN38	SWW	60.8	73.1	0.40	88.8	7.7	51.2	9.35	9.32	2L		
861724	OR8500537P	6/87SWRPN39	SWW	64.0	72.9	0.35	91.4	9.6	51.1	9.16	9.34	2L		
861725	OR8503873P	6/87SWRPN40	SWW	60.8	73.4	0.40	89.1	6.5	53.8	9.27	9.11	2L		
861726	OR8505404P	87SWRPN41	SWW	60.8	70.5	0.43	83.8	7.1	55.2	8.92	8.83	3L	Q-FYELD&CODI	
861727	OR8504126P	87SWRPN42	SWW	62.4										
861728	OR8500723H	6/87SWRPN43	SWW	62.0	72.2	0.39	88.5	7.4	54.8	9.27	9.21	4L		
861729	OR8501001P	87SWRPN44	SWW	62.4	72.3	0.44	85.2	7.5	52.0	9.10	9.04	1L	Q-CODI	
861730	OR8501163P	6/87SWRPN45	SWW	60.0	73.7	0.41	88.9	6.9	54.1	9.30	9.18	3L	Q-CODI	
861731	OR8500925H	87SWRPN46	SWW	61.2	71.0	0.42	84.8	6.9	52.1	8.95	8.83	1L	Q-FYELD&CODI	
861732	OR8502848H	87SWRPN47	SWW	64.4	72.2	0.42	86.0	6.5	54.2	9.26	9.10	8L	Q-CODI	
861733	OR8501139H	6/87SWRPN48	SWW	60.8	72.7	0.37	89.8	7.1	52.5	9.41	9.31	2L		
861734	OR8501162P	87SWRPN49	SWW	60.4	71.2	0.45	83.0	6.6	53.0	9.24	9.08	2L	Q-FYELD&CODI	
861735	OR8501116H	87SWRPN50	SWW	60.4	68.0	0.42	81.1	6.4	52.2	9.52	9.35	2L	Low FYELD	
861736	OR8500926H	87SWRPN51	SWW	64.0	69.7	0.36	87.2	5.7	54.9	9.37	9.12	2L	Q-FYELD&CODI	
861737	OR8500906H	6/87SWRPN52	SWW	65.1	71.2	0.36	88.7	5.8	51.2	9.64	9.40	8L		
861738	OR8500918P	6/87SWRPN53	SWW	65.4	72.7	0.41	87.3	6.2	53.7	9.30	9.10	8L	Q-CODI	
861739	OR8502962H	87SWRPN54	SWW	65.9	69.8	0.38	85.6	6.2	53.9	9.41	9.21	2L	Q-FYELD	
861740	OR8501047P	87SWRPN55	SWW	60.4	72.4	0.39	88.3	6.2	55.5	9.19	8.99	2L	P-CODI	
861741	OR8500907P	6/87SWRPN56	SWW	60.0	71.0	0.42	84.6	6.2	52.4	9.45	9.25	2L	Q-FYELD	
861742	OR8501005H	6/87SWRPN57	SWW	62.0	72.1	0.41	86.9	6.5	55.4	9.36	9.20	6L		
861743	OR8500934P	87SWRPN58	SWW	60.0	70.9	0.41	85.4	6.3	53.6	9.35	9.16	2L	Q-FYELD&CODI	
861744	OR8500997H	87SWRPN59	SWW	62.4	70.4	0.39	85.9	6.7	54.5	9.19	9.04	2L	Q-FYELD&CODI	
861745	OR8500923H	87SWRPN60	SWW	62.4	70.8	0.42	84.6	8.2	55.6	9.19	9.21	3L	Q-FYELD&CODI	
861746	OR8507847P	5/87SWRPN61	SWW	61.6	73.0	0.38	89.8	7.7	54.2	9.46	9.43	3L		
861747	OR8504301P	6/87SWRPN62	SWW	64.9	71.3	0.40	86.4	8.0	53.8	9.44	9.44	3L		
861748	OR8501063P	6/87SWRPN63	SWW	60.4	73.0	0.42	87.4	7.8	52.5	9.05	9.03	1L	Q-CODI	
861749	OR8500583P	87SWRPN64	SWW	62.8	70.5	0.40	85.2	7.6	54.2	9.30	9.26	3L	Q-FYELD	
861750	OR8503095H	87SWRPN65	SWW	64.4	70.2	0.39	85.6	7.7	53.4	9.04	9.00	2L	Q-FYELD&CODI	
861751	OR8505311P	87SWRPN66	SWW	60.8	71.9	0.44	84.8	7.6	54.7	9.21	9.17	3L	Q-FYELD&CODI	
861752	OR8500402P	87SWRPN67	SWW	63.2	69.7	0.38	85.8	9.3	54.1	9.09	9.23	2M	Q-FYELD&CODI	
861753	OR8503155H	6/87SWRPN68	SWW	58.8	72.9	0.38	89.8	6.5	55.0	9.39	9.22	8L	Q-CODI	
861754	OR8500378H	87SWRPN69	SWW	63.6	71.1	0.38	87.6	8.0	56.0	8.94	8.94	3L	Q-CODI	
861755	OR8501156H	87SWRPN70	SWW	61.6	71.4	0.42	85.2	6.6	54.8	8.99	8.83	8L	Q-FYELD&CODI	
861756	OR8500305P	87SWRPN71	SWW	64.0	69.8	0.39	85.4	9.0	53.7	9.06	9.17	2M	Q-FYELD&CODI	
861757	OR8500933H	87SWRPN72	SWW	59.6	69.4	0.40	84.1	8.1	52.7	9.46	9.47	2L	Q-FYELD	



NURSCO 55

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH	MSCOR	FPROT	MABSC	CODI	CODIC	MTYPE	RMKS
					1/ 1/		1/ 1/	3/ 3/		4/ 4/		
861758	OR8501216P	6/87SWRPN73	SWW	63.2	70.1	0.37	86.8	52.9	9.61	9.62	2L	Q-FYELD
861759	OR8501188P	6/87SWRPN74	SWW	60.8	70.2	0.43	83.4	54.9	9.56	9.51	6L	Q-FYELD
861760	OR8501002H	6/87SWRPN75	SWW	61.6	71.9	0.43	85.5	52.3	9.17	9.25	2M	Q-CODI
861761	OR8504303P	87SWRPN76	SWW	58.8	72.7	0.44	85.8	55.0	9.07	9.03	3L	Q-CODI
861762	OR8504584P	87SWRPN77	SWW	61.2	69.2	0.36	86.2	54.5	8.80	8.95	3M	Q-FYELD&CODI
861763	OR8500471H	6/87SWRPN78	SWW	64.8	75.4	0.36	93.9	53.5	8.74	8.94	3M	Q-CODI
861764	OR8501069P	6/87SWRPN79	SWW	63.6	71.6	0.38	88.0	53.9	9.21	9.26	2L	Q-CODI
861765	OR8500719H	6/87SWRPN80	SWW	62.0	72.8	0.39	89.2	54.9	9.30	9.30	3L	Q-CODI
861766	OR8503994P	6/87SWRPN81	SWW	56.4	72.0	0.39	87.7	52.9	9.09	9.08	2L	Q-CODI
861767	OR8503909P	6/87SWRPN82	SWW	64.0	72.5	0.39	88.7	53.7	9.19	9.33	2M	
861768	OR8500939P	87SWRPN83	SWW	64.0	69.8	0.40	84.8	52.1	9.05	9.24	2M	Q-FYELD
861769	OR8505411P	6/87SWRPN84	SWW	60.4	74.2	0.43	88.0	53.3	9.42	9.37	2L	
861770	OR8500721H	6/87SWRPN85	SWW	61.2	71.5	0.38	88.0	52.9	9.14	9.14	4L	Q-CODI
861771	OR8503096H	87SWRPN86	SWW	64.0	71.9	0.38	88.7	54.2	8.95	8.86	2L	P-CODI
861772	OR8504564P	87SWRPN87	SWW	63.2	69.7	0.37	86.4	52.7	9.09	9.27	2L	Q-FYELD
861773	OR8500593H	87SWRPN88	SWW	60.0	71.8	0.44	84.7	55.3	9.12	9.16	4L	Q-FYELD&CODI
861774	OR8500861H	6/87SWRPN89	SWW	63.6	71.8	0.41	86.5	51.9	9.06	9.16	1L	Q-CODI
861775	OR8500505H	6/87SWRPN90	SWW	63.6	72.0	0.34	91.0	55.5	9.04	9.16	6L	Q-CODI
861776	OR8500863H	87SWRPN91	SWW	64.4	74.0	0.42	88.8	52.3	8.59	8.75	3L	P-CODI
861777	OR8501026H	6/87SWRPN92	SWW	60.0	71.0	0.39	86.5	53.7	9.36	9.21	8L	
861778	OR8500594H	6/87SWRPN93	SWW	62.4	71.6	0.38	88.1	55.4	9.25	9.10	6L	Q-CODI
861779	OR8500928P	6/87SWRPN94	SWW	56.0	72.2	0.37	89.4	54.2	9.36	9.16	8L	Q-CODI
861780	OR8501187H	6/87SWRPN95	SWW	61.2	73.5	0.36	91.4	54.9	9.55	9.38	8L	
861781	OR8504865P	6/87SWRPN96	SWW	62.8	73.1	0.38	89.9	55.5	9.29	9.16	3L	Q-CODI
861782	OR8501048P	6/87SWRPN97	SWW	61.6	72.0	0.39	88.2	7.1	9.14	9.04	3L	Q-CODI
861783	OR8501157H	6/87SWRPN98	SWW	60.8	71.2	0.41	85.7	6.8	9.41	9.28	3L	

COMMENTS: Several of these selections appear about equal to Stephens and are footnoted as promising. Cookie diameter of Stephens was larger than average, but the selections were judged as related to observed values of Stephens. See "Remarks" for deficiencies or questionable properties.

P = Poor; Q = Questionable





NURSCO 56

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
					1/			1/	3/	
861784	WANSER	87HRRPN1	HRW	63.2	71.1	0.37	87.1	9.8	59.3	8M
861785	WANSER	87HRRPN2	HRW	62.8	71.0	0.37	87.2	9.8	60.0	8M
861786	OR8500007H	87HRRPN5	HRW	64.0	72.5	0.38	88.2	10.9	55.8	3M
861787	OR8500019P	87HRRPN6	HRW	63.6	73.9	0.32	93.0	10.4	58.7	2M
861788	OR8500046P	6/ 87HRRPN8	HRW	63.6	71.5	0.36	88.1	10.0	59.2	8M
861789	OR8500055H	87HRRPN9	HRW	64.0	72.7	0.30	92.5	11.1	59.9	3M
861790	OR8500066H	87HRRPN11	HRW	63.6	71.3	0.36	87.9	11.0	58.1	3M
861791	OR8500067P	87HRRPN12	HRW	63.6	70.3	0.36	86.9	10.6	60.0	3M
861792	OR8500105P	87HRRPN15	HRW	64.4	72.1	0.33	90.6	11.3	59.7	2H
861793	OR8500111S	5/ 87HRRPN16	HRW	63.2	72.3	0.31	91.6	10.7	59.8	8M
861794	OR8500113H	87HRRPN17	HRW	63.6	71.8	0.30	91.4	10.8	60.8	8M
861795	OR8500129H	6/ 87HRRPN19	HRW	62.4	69.4	0.33	87.6	13.3	61.8	3H
861796	OR8500136H	87HRRPN20	HRW	64.4	71.9	0.33	90.5	11.2	62.1	4H
861797	OR8500144P	87HRRPN21	HRW	61.6	73.3	0.36	90.3	11.7	60.4	4H
861798	OR8500165H	87HRRPN22	HRW	64.0	67.8	0.32	86.6	12.0	60.7	3H
861799	OR8500166P	87HRRPN23	HRW	63.6	69.2	0.31	88.6	11.8	59.9	3M
861800	OR8500175H	87HRRPN24	HRW	64.4	69.9	0.30	89.7	10.5	62.3	3H
861801	OR8500186P	6/ 87HRRPN25	HRW	64.0	70.0	0.33	88.1	12.2	61.1	4H
861802	OR8500187P	87HRRPN26	HRW	64.4	69.3	0.33	87.7	12.5	62.0	4H
861803	OR8500193H	87HRRPN27	HRW	62.8	73.3	0.39	88.6	10.6	59.9	4M
861804	OR8500347P	87HRRPN37	HRW	64.4	72.7	0.36	89.6	11.3	61.2	8M
861805	OR8500416H	87HRRPN40	HRW	63.2	72.0	0.36	89.0	10.0	60.8	4M
861806	OR8500493P	87HRRPN42	HRW	65.6	68.8	0.37	84.8	10.2	61.1	6M
861807	OR8500494P	87HRRPN43	HRW	65.6	68.8	0.35	86.1	9.9	60.5	6M
861808	OR8500496P	87HRRPN44	HRW	62.4	70.9	0.37	87.0	9.7	59.6	3M
861809	OR8500497H	87HRRPN45	HRW	64.4	69.9	0.35	87.3	9.5	59.3	7M
861810	OR8500509P	87HRRPN46	HRW	65.6	65.1	0.38	80.5	8.6	60.4	4M
861811	OR8500511P	87HRRPN47	HRW	64.8	67.0	0.40	81.6	10.8	61.0	4M
861812	OR8500548H	6/ 87HRRPN48	HRW	63.6	71.3	0.35	88.8	11.2	60.1	8M
861813	OR8500552H	87HRRPN49	HRW	62.0	68.0	0.38	83.7	9.8	61.9	6M
861814	OR8500563P	87HRRPN50	HRW	62.4	71.2	0.41	85.3	11.2	59.7	4M
861815	OR8500572P	87HRRPN51	HRW	64.0	73.3	0.33	91.7	11.1	60.5	4M
861816	OR8500601P	87HRRPN52	HRW	63.2	71.2	0.36	88.0	10.5	61.4	7M
861817	OR8500606H	87HRRPN53	HRW	65.2	72.1	0.39	87.1	10.2	60.4	2H
861818	OR8500608H	87HRRPN54	HRW	61.2	71.7	0.44	84.4	10.2	58.8	3M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 56

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861784	WANSER	87HRRPN1	HRW	60.8	61.0	5.0	780	794	4	P-Mix - No Baking P-Mix - No Baking 4= Wanser
861785	WANSER	87HRRPN2	HRW	61.5	61.7	5.3	785	799	4	
861786	OR850007H	87HRRPN5	HRW							
861787	OR8500019P	87HRRPN6	HRW							
861788	OR8500046P	87HRRPN8	HRW	60.9	60.9	5.9	750	750		
861789	OR8500055H	87HRRPN9	HRW							
861790	OR8500066H	87HRRPN11	HRW	61.7	60.6	2.4	740	672		4P-MTIME&LVOL
861791	OR8500067P	87HRRPN12	HRW	62.3	61.7	2.5	740	703		P-Mix - No Baking
861792	OR8500105P	87HRRPN15	HRW							7P-MTIME, LVOL&BCRGR
861793	OR8500111S	87HRRPN16	HRW	62.2	61.5	5.4	840	797	2	P-Mix - No Baking
861794	OR8500113H	87HRRPN17	HRW							
861795	OR8500129H	87HRRPN19	HRW	63.3	62.5	5.4	750	700	5Q-	LVOL&BCRGR
861796	OR8500136H	87HRRPN20	HRW	66.8	63.5	2.3	925	720	3Q-	MTIME
861797	OR8500144P	87HRRPN21	HRW	65.0	63.8	4.0	745	671	5P-	LVOL Q-BCRGR
861798	OR8500165H	87HRRPN22	HRW	63.8	62.1	4.1	810	705	2	
861799	OR8500166P	87HRRPN23	HRW	64.4	62.4	2.5	725	601	6P-	FYELD, LVOL&BCRGR
861800	OR8500175H	87HRRPN24	HRW	63.4	61.6	2.1	705	593	8P-	MTIME, LVOL&BCRGR
861801	OR8500186P	87HRRPN25	HRW	64.5	64.0	2.5	800	769	6Q-	MTIME, LVOL&BCRGR
861802	OR8500187P	87HRRPN26	HRW	65.0	62.8	2.9	855	719	2	
861803	OR8500193H	87HRRPN27	HRW	66.2	63.7	2.6	870	715	5Q-	LVOL&BCRGR
861804	OR8500347P	87HRRPN37	HRW	62.2	61.6	3.1	760	723	6Q-	LVOL&BCRGR
861805	OR8500416H	87HRRPN40	HRW	64.2	62.9	4.8	750	669	4P-	LVOL&BCRGR
861806	OR8500493P	87HRRPN42	HRW	62.5	62.5	2.2	740	740	6P-	MTIME&BCRGR
861807	OR8500494P	87HRRPN43	HRW	63.0	62.8	3.2	775	763	5Q-	FYELD&BCRGR
861808	OR8500496P	87HRRPN44	HRW	62.1	62.2	2.8	760	766	6Q-	FYELD&BCRGR
861809	OR8500497H	87HRRPN45	HRW							P-Mix - No Baking
861810	OR8500509P	87HRRPN46	HRW	60.5	61.0	3.2	740	771	6Q-	BCRGR
861811	OR8500511P	87HRRPN47	HRW	60.7	62.1	3.0	615	702	9P-	FYELD, LVOL&BCRGR
861812	OR8500548H	87HRRPN48	HRW	63.5	62.7	2.6	825	775	4P-	FYELD
861813	OR8500552H	87HRRPN49	HRW	63.0	61.8	4.1	860	786	4=	Wanser
861814	OR8500563P	87HRRPN50	HRW	63.4	63.6	3.7	790	802	4P-	FYELD
861815	OR8500572P	87HRRPN51	HRW	62.6	61.4	2.9	795	721	5Q-	LVOL&BCRGR
861816	OR8500601P	87HRRPN52	HRW	63.3	62.2	3.2	750	682	5P-	LVOL Q-BCRGR
861817	OR8500606H	87HRRPN53	HRW	63.6	63.1	3.9	725	694	6P-	LVOL Q-BCRGR
861818	OR8500608H	87HRRPN54	HRW	62.3	62.1	2.5	765	753	8P-	BCRGR



NURSCO 56

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861819	OR8500683P	87HRRPN59	HRW	63.2	68.4	0.43	81.3	10.2	62.3	3H
861820	OR8500694P	87HRRPN60	HRW	62.8	68.9	0.45	80.8	8.9	64.1	4M
861821	OR8500695P	87HRRPN61	HRW	62.8	68.4	0.45	80.3	7.7	63.8	6L
861822	OR8500696P	87HRRPN62	HRW	63.6	70.3	0.41	84.6	8.8	63.2	4M
861823	OR8500704H	6/87HRRPN63	HRW	64.0	70.7	0.40	85.2	10.2	62.6	4M
861824	OR8500705H	6/87HRRPN64	HRW	63.2	70.2	0.38	85.9	10.8	62.9	3M
861825	OR8500707P	87HRRPN65	HRW	61.2	68.5	0.40	82.9	10.8	63.5	5H
861826	OR8500715S	87HRRPN66	HRW	64.0	71.5	0.34	89.2	9.7	60.8	3M
861827	OR8500749H	87HRRPN68	HRW	60.0	70.7	0.32	89.7	10.4	60.4	7M
861828	OR8500753P	87HRRPN69	HRW	63.6	71.5	0.30	91.2	10.7	60.8	5M
861829	OR85000754	87HRRPN70	HRW	62.4	70.6	0.31	90.2	10.3	62.5	8M
861830	OR8500759P	87HRRPN71	HRW	65.6	70.1	0.30	89.7	11.0	61.9	2H
861831	OR8500803P	87HRRPN72	HRW	62.0						
861832	OR8500847P	87HRRPN73	HRW	61.2	69.8	0.35	87.2	10.6	60.1	8M
861833	OR8502559H	87HRRPN76	HRW	65.6	68.7	0.33	87.1	9.7	63.2	7M
861834	OR8502609H	87HRRPN77	HRW	64.0	67.2	0.33	85.4	9.9	63.5	7M
861835	OR8503388H	87HRRPN78	HRW	61.2	69.8	0.40	84.4	9.4	59.4	3M
861836	OR8503848P	87HRRPN79	HRW	62.4	68.5	0.34	86.1	9.1	58.4	1M
861837	OR8503964P	87HRRPN80	HRW	62.0	70.0	0.36	86.9	8.2	60.6	3L
861838	OR8504896P	87HRRPN86	HRW	64.0	70.9	0.35	87.9	9.3	60.4	4L
861839	OR8504971P	87HRRPN88	HRW	64.8	70.2	0.34	88.1	9.1	62.1	4L
861840	OR8505543P	87HRRPN97	HRW	63.2	69.7	0.36	86.5	9.4	61.0	4L



NURSCO 56

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
861819	OR8500683P	87HRRPN59	HRW	62.2	62.0	2.8	745	733		8 Q-LVOL P-BCRGR
861820	OR8500694P	87HRRPN60	HRW	64.2	65.3	3.0	740	808		6 P-BCRGR
861821	OR8500695P	87HRRPN61	HRW	62.2	64.5	3.5	645	788		8 P-BCRGR
861822	OR8500696P	87HRRPN62	HRW	63.7	64.9	3.1	705	779		6 Q-BCRGR
861823	OR8500704H	87HRRPN63	HRW	63.5	63.3	3.0	810	798		4 = Wanser
861824	OR8500705H	87HRRPN64	HRW	64.4	63.6	2.5	870	820		3
861825	OR8500707P	87HRRPN65	HRW	66.0	65.2	5.6	860	810		4 Q-FYELD
861826	OR8500715S	87HRRPN66	HRW							P-MixO No Baking
861827	OR8500749H	87HRRPN68	HRW	62.5	62.1	3.6	715	690		6 P-LVOL&BCRGR
861828	OR8500753P	87HRRPN69	HRW	63.2	62.5	3.1	695	652		7 P-LVOL&BCRGR
861829	OR85000754	87HRRPN70	HRW	64.5	64.2	4.0	690	671		7 P-LVOL&BCRGR
861830	OR8500759P	87HRRPN71	HRW							P-MIXO No Baking
861831	OR8500803P	87HRRPN72	HRW							
861832	OR8500847P	87HRRPN73	HRW	62.4	61.8	5.3	770	733		6 Q-LVOL&BCRGR
861833	OR8502559H	87HRRPN76	HRW	64.6	64.9	3.7	700	719		8 P-LVOL&BCRGR
861834	OR8502609H	87HRRPN77	HRW	65.1	65.2	3.6	725	731		8 P-FYELD&BCRGR
861835	OR8503388H	87HRRPN78	HRW							P-MIXO - No Baking
861836	OR8503848P	87HRRPN79	HRW							P-MIXO - No Baking
861837	OR8503964P	87HRRPN80	HRW							
861838	OR8504896P	87HRRPN86	HRW	61.4	62.1	2.6	710	753		7 Q-LVOL&BCRGR
861839	OR8504971P	87HRRPN88	HRW	62.9	63.8	3.3	660	716		8 P-LVOL&BCRGR
861840	OR8505543P	87HRRPN97	HRW	62.1	62.7	3.2	700	737		8 Q-LVOL&BCRGR

COMMENTS: The check variety (Wanser) was abnormal in loaf volume and crumb grain. The experimental selections were judged accordingly. See "Remarks" for deficiencies (values lower as compared to Wanser).

Q = Questionable; P = Poor





NURSCO 57

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
861841 WANSER		87HRRPN1	HRW	62.0	69.1	0.38	84.8	8.5	62.0	8L
861842 WANSER		87HRRPN2	HRW	61.6	70.0	0.39	85.3	8.9	59.6	8L
861843 OR8500072P		87HRRPN13	HRW	63.6	69.3	0.35	86.5	10.1	61.9	7M
861844 OR8500074P		87HRRPN14	HRW	63.2	72.3	0.35	89.8	10.3	58.5	8L
861845 OR8500115P		6/ 87HRRPN18	HRW	64.8	71.2	0.35	88.4	11.8	63.0	4H
861846 OR8500274P		87HRRPN28	HRW	62.8	69.0	0.40	83.6	8.4	59.7	8L
861847 OR8500276P		87HRRPN29	HRW	62.0	68.3	0.44	80.7	9.2	61.6	6L
861848 OR8500287P		87HRRPN30	HRW	61.2	72.5	0.40	87.0	9.2	59.8	4M
861849 OR8500288P		87HRRPN31	HRW	62.4	73.3	0.38	89.1	9.8	61.0	3M
861850 OR8500289P		87HRRPN32	HRW	63.2	72.1	0.41	86.5	9.4	58.9	3M
861851 OR8500301P		87HRRPN33	HRW	64.0	70.4	0.40	85.2	9.1	61.9	6M
861852 OR8500302H		87HRRPN34	HRW	63.6	69.7	0.42	83.3	8.5	61.6	7M
861853 OR8500303H		87HRRPN35	HRW	63.6	70.4	0.41	84.5	8.8	62.0	4M
861854 OR8500347P		6/ 87HRRPN37	HRW	64.4	70.6	0.35	88.0	9.6	58.2	3L
861855 OR8500348P		87HRRPN38	HRW	64.8	72.2	0.39	87.5	9.9	63.1	8M
861856 OR8500395P		87HRRPN39	HRW	62.4	68.2	0.35	85.4	13.7	61.4	2H
861857 OR8500472P		87HRRPN41	HRW	64.4	68.6	0.37	84.5	9.5	61.6	7M
861858 OR8500608P		87HRRPN55	HRW	64.8	70.8	0.38	86.3	9.7	58.6	3M
861859 OR8500673P		87HRRPN56	HRW	64.0	70.7	0.38	86.1	9.5	61.7	4H
861860 OR8500677P		87HRRPN57	HRW	64.4	65.5	0.37	81.5	10.6	61.4	2H
861861 OR8500919H		87HRRPN74	HRW	65.6	69.5	0.39	84.5	7.7	62.9	6L
861862 OR8504543P		87HRRPN85	HRW	64.0	71.0	0.35	88.3	10.5	61.0	3M
861863 OR85004906		87HRRPN87	HRW	64.8	69.6	0.35	87.0	10.3	60.2	3M
861864 OR8505027P		87HRRPN89	HRW	63.6	69.7	0.35	86.9	8.7	59.8	3L
861865 OR8505101P		87HRRPN90	HRW	62.4	70.0	0.35	87.2	9.5	59.1	3L
861866 OR8505116P		87HRRPN91	HRW	63.6	71.5	0.34	89.2	10.4	61.3	3M
861867 OR8505289P		87HRRPN92	HRW	60.4	68.9	0.39	84.1	9.8	58.8	3L
861868 OR8505307P		87HRRPN93	HRW	61.2	69.1	0.38	84.5	10.8	60.7	4M
861869 OR8505323P		6/ 87HRRPN94	HRW	62.4	71.8	0.38	87.3	9.9	61.2	4M
861870 OR8505424P		87HRRPN95	HRW	64.8	72.2	0.35	89.5	9.0	64.1	7M
861871 OR8508432P		87HRRPN96	HRW	62.4	71.3	0.33	89.4	10.3	61.4	6M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 57

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861841	WANSER	87HRRPN1	HRW	62.2	63.7	5.2	730	834	4	
861842	WANSER	87HRRPN2	HRW	60.2	61.3	4.4	705	781	4	
861843	OR8500072P	87HRRPN13	HRW	63.7	63.6	4.0	730	724	4	Low LVOL
861844	OR8500074P	87HRRPN14	HRW	60.5	60.2	4.6	700	681	4	P-LVOL
861845	OR8500115P	87HRRPN18	HRW	66.5	64.7	3.5	875	763	2	
861846	OR8500274P	87HRRPN28	HRW	59.8	61.4	3.7	750	849	7	P-BCRGR
861847	OR8500276P	87HRRPN29	HRW	62.5	63.3	3.9	735	785	7	P-BCRGR
861848	OR8500287P	87HRRPN30	HRW	60.7	61.5	2.5	750	800	5	Q-BCRGR
861849	OR8500288P	87HRRPN31	HRW	62.5	62.7	2.3	725	737	6	P-MTIME, LVOL&BCRGR
861850	OR8500289P	87HRRPN32	HRW	60.0	60.6	1.9	685	722	6	P-MTIME, LVOL&BCRGR
861851	OR8500301P	87HRRPN33	HRW	62.7	63.6	2.6	710	766	6	Q-MTIME, LVOL&BCRGR
861852	OR8500302H	87HRRPN34	HRW	61.8	63.3	2.6	645	738	7	P-LVOL&BCRGR
861853	OR8500303H	87HRRPN35	HRW	62.5	63.7	2.4	680	754	7	P-LVOL&BCRGR
861854	OR8500347P	87HRRPN37	HRW	60.5	60.9	3.1	790	815	4	
861855	OR8500348P	87HRRPN38	HRW	64.7	64.8	5.0	675	681	6	P-LVOL&BCRGR
861856	OR8500395P	87HRRPN39	HRW	66.8	63.1	2.3	850	621	3	P-MTIME
861857	OR8500472P	87HRRPN41	HRW	62.8	63.3	3.2	660	691	7	P-LVOL&BCRGR
861858	OR8500608P	87HRRPN55	HRW	60.0	60.3	2.6	735	754	6	P-LVOL&BCRGR
861859	OR8500673P	87HRRPN56	HRW	62.9	63.4	2.9	715	746	6	P-LVOL&BCRGR
861860	OR8500677P	87HRRPN57	HRW	63.7	63.1	2.3	775	738	3	P-FYELD, MTIME&LVOL
861861	OR8500919H	87HRRPN74	HRW	62.3	64.6	4.1	615	758	8	P-LVOL&BCRGR
861862	OR8504543P	87HRRPN85	HRW	63.2	62.7	2.0	725	694	7	P-MTIME, LVOL&BCRGR
861863	OR85004906	87HRRPN87	HRW	61.2	60.9	2.0	735	716	6	P-MTIME, LVOL&BCRGR
861864	OR8505027P	87HRRPN89	HRW	59.2	60.5	1.9	710	791	8	P-MTIME, LVOL&BCRGR
861865	OR8505101P	87HRRPN90	HRW	60.3	60.8	2.5	605	636	9	P-MTIME, LVOL&BCRGR
861866	OR8505116P	87HRRPN91	HRW	63.4	63.0	2.3	765	740	8	P-MTIME, LVOL&BCRGR
861867	OR8505289P	87HRRPN92	HRW	59.3	59.5	2.6	745	757	7	P-MTIME, LVOL&BCRGR
861868	OR8505307P	87HRRPN93	HRW	63.2	62.4	3.3	765	715	6	P-LVOL&BCRGR
861869	OR8505323P	87HRRPN94	HRW	62.8	62.9	3.7	770	776	4	Q-LVOL
861870	OR8505424P	87HRRPN95	HRW	64.8	65.8	4.0	645	707	8	P-LVOL&BCRGR
861871	OR8508432P	87HRRPN96	HRW	63.4	63.1	3.7	750	731	7	P-LVOL&BCRGR

COMMENTS: Many of these selections are characterized by short and weak dough mixing properties accompanied by low loaf volumes and heavy crumb grain. ID #39 is noteworthy for high protein, however, it is short in mixing time and very low in volume for its protein level.  
See "Remarks" for other deficiencies.

P = Poor; Q = Questionable



NURSCO 58

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
861872	WANSER	87HRRPN1	HRW	64.0	72.8	0.34	90.7	9.8	61.6	8M
861873	STEPHENS	87HRRPN2	SWW	60.8	73.1	0.40	88.7	10.1	56.2	2M
861874	CENTURA	87HRRPN3	HRW	64.8	72.7	0.31	92.1	10.0	63.0	8M
861875	OR8400026P	87HRRAN9	HRW	61.6	73.0	0.32	91.8	9.4	58.5	2M
861876	OR8400027P	87HRRAN10	HRW	60.4	70.7	0.34	88.7	9.9	58.0	2M
861877	OR8400032H	87HRRAN11	HRW	59.6	71.1	0.39	86.3	8.4	57.4	3L
861878	OR8400082H	6/87HRRAN12	HRW	63.6	70.2	0.40	85.0	10.6	62.1	8M
861879	OR8400138H	87HRRAN13	HRW	60.4	70.2	0.40	84.9	9.0	59.2	3M
861880	OR8400139H	87HRRAN14	HRW	59.2	68.8	0.39	83.7	9.2	60.5	3M
861881	OR8400157P	87HRRAN15	HRW	63.6	71.6	0.37	87.9	9.0	60.7	8L
861882	OR8400159P	6/87HRRAN16	HRW	62.8	71.0	0.35	88.3	9.2	60.6	8L
861883	OR8400161P	6/87HRRAN17	HRW	62.8	72.1	0.37	88.4	9.4	59.9	8L
861884	OR8400212H	5/87HRRAN18	HRW	64.8	73.2	0.35	90.4	10.6	63.4	5H
861885	OR8400214H	5/87HRRAN19	HRW	65.2	73.0	0.32	91.8	10.8	62.3	4H
861886	OR8400262H	5/87HRRAN20	HRW	64.4	73.1	0.31	92.3	9.7	62.3	8M
861887	OR8400293S	87HRRAN21	HRW	62.8	73.5	0.33	92.1	9.8	58.0	3M
861888	OR8400366H	87HRRAN22	HRW	65.6	73.1	0.31	92.6	11.3	61.5	4M
861889	OR8400494H	87HRRAN23	HRW	62.8	71.3	0.38	86.7	9.3	60.5	4M
861890	OR8400703H	87HRRAN24	HRW	64.8	68.6	0.35	85.8	10.8	61.7	4M
861891	OR8400746S	87HRRAN25	HRW	64.0	71.1	0.35	88.4	10.7	60.8	3M
861892	OR8400747P	87HRRAN26	HRW	64.0	72.3	0.35	89.6	11.0	59.9	3M
861893	OR8400748P	87HRRAN27	HRW	63.2	72.6	0.36	89.4	10.8	59.6	3M
861894	OR8400756P	6/87HRRAN28	HRW	64.8	74.9	0.34	92.8	11.4	64.0	7H
861895	OR8401355P	87HRRAN29	HRW	64.0	71.8	0.34	89.8	8.9	60.0	6L
861896	OR8401431P	87HRRAN30	HRW	64.0	72.8	0.32	91.7	10.4	62.9	8M
861897	OR8401425H	87HRRAN31	HRW	62.4	71.9	0.33	90.2	8.6	60.9	8L
861898	OR8401707P	87HRRAN32	HRW	62.0	71.4	0.38	86.9	8.7	60.7	4L
861899	OR8401708P	87HRRAN33	HRW	60.4	69.9	0.39	84.9	9.2	63.2	7M
861900	OR8401709P	87HRRAN34	HRW	60.4	69.7	0.39	84.9	9.4	61.7	4L
861901	OR8401747H	87HRRAN36	SRW	62.4	67.8	0.36	84.7	9.0	58.5	2M
861902	OR8403309H	6/87HRRAN37	SRW	61.6	70.4	0.35	89.6	10.4	60.3	4H

1/ Observed Values Corrected to 14% Moisture Basis.

2/ Absorption at 14% Moisture Basis Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 58

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861872	WANSER	87HRRPN1	HRW	62.6	62.8	5.1	810	824	3	
861873	STEPHENS	87HRRPN2	SWW							
861874	CENTURA	87HRRPN3	HRW	64.2	64.2	5.4	830	830	4	
861875	OR8400026P	87HRRAN9	HRW	57.6	58.2	1.2	775	812	6	P-MTIME&BCRGR
861876	OR8400027P	87HRRAN10	HRW	56.6	56.7	1.2	825	831	7	P-MTIME&BCRGR
861877	OR8400032H	87HRRAN11	HRW	56.5	58.1	2.1	770	869	8	P-MTIME&BCRGR
861878	OR8400082H	87HRRAN12	HRW	64.4	63.8	4.2	865	828	3	Q-FYELD
861879	OR8400138H	87HRRAN13	HRW	59.4	60.4	2.6	725	787	8	P-MTIME&BCRGR
861880	OR8400139H	87HRRAN14	HRW	60.4	61.2	2.6	725	775	7	P-MTIME&BCRGR
861881	OR8400157P	87HRRAN15	HRW	61.4	62.4	4.8	820	882	6	P-BCRGR
861882	OR8400159P	87HRRAN16	HRW	61.5	62.3	4.8	830	880	4	
861883	OR8400161P	87HRRAN17	HRW	61.0	61.6	4.7	820	857	3	
861884	OR8400212H	87HRRAN18	HRW	65.7	65.1	4.7	910	873	3	
861885	OR8400214H	87HRRAN19	HRW	64.8	64.0	3.4	920	870	2	
861886	OR8400262H	87HRRAN20	HRW	63.7	64.0	4.3	880	899	3	
861887	OR8400293S	87HRRAN21	HRW	59.0	59.2	2.1	785	797	7	P-MTIME&BCRGR
861888	OR8400366H	87HRRAN22	HRW	64.0	62.7	2.9	920	839	2	
861889	OR8400494H	87HRRAN23	HRW	61.5	62.2	2.8	730	773	8	P-LVOL&BCRGR
861890	OR8400703H	87HRRAN24	HRW	64.2	63.4	2.1	805	755	9	P-MTIME, LVOL&BCRGR
861891	OR8400746S	87HRRAN25	HRW	63.2	62.5	2.5	850	807	5	P-BCRGR
861892	OR8400747P	87HRRAN26	HRW	62.6	61.6	2.4	855	793	4	Q-MTIME&LVOL
861893	OR8400748P	87HRRAN27	HRW	62.1	61.3	2.4	875	825	6	Q-MTIME&BCRGR
861894	OR8400756P	87HRRAN28	HRW	67.1	65.7	7.8	865	778	3	Q-LVOL
861895	OR8401355P	87HRRAN29	HRW	60.6	61.7	4.7	735	803	7	P-BCRGR
861896	OR8401431P	87HRRAN30	HRW	65.0	64.6	4.6	805	780	6	P-LVOL&BCRGR
861897	OR8401425H	87HRRAN31	HRW	61.2	62.6	5.2	700	787	6	P-LVOL&BCRGR
861898	OR8401707P	87HRRAN32	HRW	61.1	62.4	2.9	755	836	6	P-BCRGR
861899	OR8401708P	87HRRAN33	HRW	64.1	64.9	2.8	765	815	5	Q-BCRGR
861900	OR8401709P	87HRRAN34	HRW	62.8	63.4	3.0	825	862	7	P-BCRGR
861901	OR8401747H	87HRRAN36	SRW	59.2	60.2	1.7	715	775	8	P-MTIME, LVOL&BCRGR
861902	OR8403309H	87HRRAN37	SRW	62.4	62.0	3.4	850	826	2	Q-Softness?

COMMENTS: Several of these selections have overall quality equal to or better than Wanser and Centura and are footnoted. The most common deficiencies of the others were poor baking properties (See Remarks).

P = Poor; Q = Questionable





NURSCO 59

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
861903 STEPHENS		87SWRAN1	SWW	58.2	70.1	0.39	79.9	11.5	57.2	3M	
861904 STEPHENS-FND		87SWRAN2	SWW	58.9	69.9	0.40	78.9	11.3	59.2	3M	
861905 STEPHENS-BRD		87SWRAN3	SWW	57.3	70.2	0.43	77.5	11.5	59.3	4M	
861906 HILL		87SWRAN4	SWW	58.6	69.2	0.42	76.7	11.6	59.8	4M	
861907 HILL-FDN		87SWRAN5	SWW	59.3	71.6	0.42	81.7	11.5	60.8	4M	
861908 HILL-BDR		87SWRAN6	SWW	60.2	71.3	0.40	81.8	10.8	60.6	4M	
861909 MALCOLM		87SWRAN7	SWW	60.1	70.1	0.39	80.0	9.8	59.5	4L	
861910 MALCOLM-BDR		87SWRAN8	SWW	59.0	70.7	0.40	80.5	11.3	59.9	4M	
861911 MALCOLM-FDN		87SWRAN9	SWW	59.5	71.0	0.43	78.7	10.4	59.0	4M	
861912 ORCW8723		6/ 87SWELT23	SWW	60.5	71.7	0.40	82.8	10.4	60.7	4M	
861913 OR824502		6/ 87SWRAN11	SWW	58.9	71.3	0.39	81.3	10.8	60.6	4M	
861914 ORCW8724		87SWELT24	SWW	59.2	70.2	0.45	81.4	10.0	59.9	8M	
861915 OR824686		87SWRAN12	SWW	61.8	70.2	0.41	81.6	9.0	59.4	6L	
861916 ORCW8725		6/ 87SWELT25	SWW	59.4	72.4	0.42	82.8	10.0	59.4	4M	
861917 OR813639		6/ 87SWRAN13	SWW	58.3	69.1	0.41	77.4	11.4	61.0	4H	
861918 ORCW8726		6/ 87SWELT26	SWW	59.1	73.2	0.42	82.7	11.0	58.8	3M	
861919 OR8300058		87SWRAN14	SWW	61.1	74.4	0.44	85.2	10.7	57.4	8M	
861920 OR8300066		87SWRAN15	SWW	61.4	73.6	0.41	84.2	10.8	59.4	8M	
861921 OR8300166		87SWELT27	SWW	58.1	68.4	0.41	76.3	10.6	57.6	4M	
861922 OR8300211		87SWELT28	SWW	57.4	68.1	0.50	71.3	10.9	58.9	4M	
861923 OR8300404		6/ 87SWRAN17	SWW	56.2	70.4	0.45	77.4	10.9	58.3	4M	
861924 OR8300801		6/ 87SWELT29	SWW	57.0	69.4	0.45	76.8	11.4	59.0	6M	
861925 OR8301012		5/ 87SWRAN18	SWW	62.5	72.7	0.36	86.8	11.2	56.2	8M	
861926 OR8301787		87SWRAN19	SWW	59.9	70.3	0.44	78.4	10.9	60.0	8M	
861927 OR8301833		87SWRAN20	SWW	61.9	68.1	0.39	77.2	11.0	58.9	4M	
861928 OR8302288		87SWRAN21	SWW	59.6	68.6	0.44	75.2	10.9	59.7	8M	
861929 OR8302396		87SWRAN22	HWW	56.2	64.7	0.51	67.3	10.3	60.5	3H	
861930 OR8302627		87SWRAN23	SWW	60.5	69.3	0.38	79.3	11.0	60.4	8M	
861931 OR8302662		87SWRAN24	SWW	56.0	66.8	0.45	72.6	11.6	59.6	3H	
861932 OR8302665		87SWELT30	SWW	57.1	66.7	0.43	73.4	11.5	60.1	2H	
861933 OR8302784		87SWELT31	SWW	60.4	70.8	0.44	77.7	11.3	58.9	4M	
861934 OR8303032		87SWELT32	SWW	61.7	67.5	0.49	71.9	10.2	60.2	8M	
861935 OR8303039		87SWRAN25	SWW	56.8	68.5	0.47	73.0	10.6	55.7	2M	
861936 OR8303053		5/ 87SWELT33	SWW	59.8	71.6	0.44	80.1	10.5	59.3	2M	
861937 OR8303085		6/ 87SWRAN26	SWW	61.3	70.0	0.45	78.1	10.3	56.0	3L	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

61.5



W. E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				<u>3/</u>		<u>4/</u>	<u>4/</u>			<u>4/</u>	
861903	STEPHENS	87SWRAN1	SWW						8.54	8.59	
861904	STEPHENS-FND	87SWRAN2	SWW						8.77	8.81	
861905	STEPHENS-BRD	87SWRAN3	SWW						8.56	8.62	
861906	HILL	87SWRAN4	SWW						8.56	8.63	
861907	HILL-FDN	87SWRAN5	SWW						8.64	8.69	
861908	HILL-BDR	87SWRAN6	SWW						8.64	8.62	
861909	MALCOLM	87SWRAN7	SWW						8.80	8.67	
861910	MALCOLM-BDR	87SWRAN8	SWW						8.64	8.67	
861911	MALCOLM-FDN	87SWRAN9	SWW						8.64	8.57	
861912	ORCW8723	87SWELT23	SWW						8.65	8.58	
861913	OR824502	87SWRAN11	SWW						8.60	8.58	
861914	ORCW8724	87SWELT24	SWW						8.52	8.41	Q-CODI
861915	OR824686	87SWRAN12	SWW						8.64	8.42	Q-CODI
861916	ORCW8725	87SWELT25	SWW						8.66	8.55	
861917	OR813639	87SWRAN13	SWW						8.61	8.66	
861918	ORCW8726	87SWELT26	SWW						8.76	8.76	
861919	OR8300058	87SWRAN14	SWW						8.42	8.39	Q-CODI
861920	OR8300066	87SWRAN15	SWW						8.44	8.42	Q-CODI
861921	OR8300166	87SWELT27	SWW						8.85	8.81	Q-FYELD
861922	OR8300211	87SWELT28	SWW						8.36	8.35	Q-FYELD&CODI
861923	OR8300404	87SWRAN17	SWW						8.65	8.64	
861924	OR8300801	87SWELT29	SWW						8.60	8.64	
861925	OR8301012	87SWRAN18	SWW						8.71	8.73	
861926	OR8301787	87SWRAN19	SWW						8.29	8.28	P-CODI
861927	OR8301833	87SWRAN20	SWW						8.41	8.41	Q-CODI&FYELD
861928	OR8302288	87SWRAN21	SWW						8.57	8.56	Q-FYELD
861929	OR8302396	87SWRAN22	HWW	62.2	3.1	860	903	5	7.90	7.84	(Hard) P-BCRGR
861930	OR8302627	87SWRAN23	SWW						8.46	8.46	Q-CODI
861931	OR8302662	87SWRAN24	SWW						8.44	8.50	Q-CODI
861932	OR8302665	87SWELT30	SWW						8.40	8.45	Q-CODI P-FYELD
861933	OR8302784	87SWELT31	SWW						8.36	8.40	Q-CODI
861934	OR8303032	87SWELT32	SWW						8.64	8.55	P-FYELD
861935	OR8303039	87SWRAN25	SWW						8.92	8.88	Q-FYELD
861936	OR8303053	87SWELT33	SWW						8.95	8.89	
861937	OR8303085	87SWRAN26	SWW						8.86	8.79	



NURSCO 59

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
861938	OR83031103	6/87SWELT34	SWW	61.2	71.6	0.45	79.9	10.2	59.4	6M	
861939	OR83031134	5/87SWRAN27	SWW	61.1	74.1	0.43	85.5	9.7	58.6	4L	
861940	OR8303301	6/87SWRAN28	SWW	59.3	71.7	0.45	81.2	10.5	61.4	4M	
861941	OR8303313	6/87SWELT35	SWW	62.0	72.8	0.47	81.1	10.8	59.8	3M	
861942	OR8303451	87SWRAN29	SWW	61.5	72.9	0.43	82.6	8.8	60.3	6L	
861943	OR8303646	87SWELT36	SWW	62.8	74.3	0.47	84.3	9.6	58.4	3M	
861944	OR8303649	87SWELT37	SWW	63.3	73.4	0.43	84.9	8.8	58.6	4L	
861945	OR8303725	87SWELT38	SWW	60.2	73.6	0.44	84.2	9.5	57.0	3L	
861946	OR8303734	6/87SWRAN30	SWW	58.6	73.6	0.46	82.7	10.4	60.0	6M	
861947	OR8303765	87SWELT39	SWW	60.4	71.9	0.46	80.9	9.4	59.0	6M	
861948	OR8304686	87SWELT40	SWW	59.2	73.0	0.45	82.4	10.2	58.9	4M	
861949	OR8305215	87SWRAN31	SWW	59.7	72.1	0.44	81.5	11.3	60.3	2H	
861950	OR8305232	87SWRAN32	SWW	54.5	68.7	0.45	74.3	12.5	59.8	2H	
861951	OR8010245	87SWRAN33	HWW	62.0	63.9	0.45	72.5	11.2	65.5	6H	69.4





NURSCO 59

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				<u>3/</u>		<u>4/</u>				<u>4/</u>	
861938	OR8303103	87SWELT34	SWM						8.62	8.54	
861939	OR8303134	87SWRAN27	SWM						8.82	8.68	
861940	OR8303301	87SWRAN28	SWM						8.62	8.57	
861941	OR8303313	87SWELT35	SWM						8.62	8.60	
861942	OR8303451	87SWRAN29	SWM						8.46	8.22 P-CODI	
861943	OR8303646	87SWELT36	SWM						8.62	8.47 Q-CODI	
861944	OR8303649	87SWELT37	SWM						8.46	8.22 P-CODI	
861945	OR8303725	87SWELT38	SWM						8.51	8.35 P-CODI	
861946	OR8303734	87SWRAN30	SWM						8.62	8.56	
861947	OR8303765	87SWELT39	SWM						8.55	8.37 P-CODI	
861948	OR8304686	87SWELT40	SWM						8.41	8.32 P-CODI	
861949	OR8305215	87SWRAN31	SWM						8.26	8.30 P-CODI	
861950	OR8305232	87SWRAN32	SWM	69.2	5.8	815	803	5	8.45	8.61 Q-FYELD	
861951	OR8010245	87SWRAN33	HWM						7.39	7.40 P-FYELD, LVOL&BCRGR	

COMMENTS: Milling scores were lower than average for the check varieties in this group. See "Remarks" for deficiencies of selections not footnoted as promising.

P = Poor; Q = Questionable



NURSCO 60

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
						1/		1/	3/
861952	STEPHENS	87SWELT1	SWW	58.3	74.3	0.46	82.1	10.7	57.5
861953	HILL	87SWELT2	SWW	58.7	73.9	0.46	82.3	10.9	56.6
861954	MALCOLM	87SWELT4	SWW	59.7	71.7	0.41	82.0	9.9	57.7
861955	TRES	87SWELT5	CLUB	60.0	72.9	0.44	81.5	10.5	49.6
861956	ORCW8314	6/ 87SWELT7	SWW	60.1	71.5	0.40	81.8	10.0	58.4
861957	ORCW8519	87SWELT8	SWW	58.3	70.1	0.43	78.1	11.4	61.0
861958	ORCW8521	6/ 87SWELT9	SWW	63.4	70.9	0.39	81.6	10.0	57.1
861959	ORCW8522	6/ 87SWELT10	SWW	63.6	71.1	0.38	81.9	10.1	57.3
861960	ORCW8625	87SWELT11	SWW	58.7	72.4	0.43	82.3	11.4	56.6
861961	ORCW8626	5/ 87SWELT12	SWW	59.3	74.9	0.43	87.2	11.4	56.8
861962	ORCW8627	5/ 87SWELT13	SWW	61.3	73.6	0.38	87.7	10.8	58.9
861963	ORCW8628	87SWELT14	SWW	59.5	71.6	0.41	81.3	10.0	58.3
861964	ORCW8629	5/ 87SWELT15	SWW	61.0	72.2	0.35	86.0	8.8	58.4
861965	ORCW8630	87SWELT16	SWW	61.1	73.1	0.35	88.4	9.8	56.4
861966	ORCW8631	5/ 87SWELT17	SWW	60.3	75.4	0.38	89.3	10.1	58.7
861967	ORCW8632	6/ 87SWELT18	SWW	59.9	71.5	0.38	84.0	10.4	58.4
861968	ORCW8633	87SWELT19	SWW	58.6	67.5	0.41	75.7	11.2	56.9
861969	ORCW8634	6/ 87SWELT20	SWW	59.9	69.6	0.42	78.1	10.2	56.7
861970	ORCW8635	6/ 87SWELT21	SWW	60.0	70.1	0.38	79.7	10.0	56.8
861971	ORCW8637	87SWELT22	SWW	59.4	69.7	0.42	78.2	10.6	58.3

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 60

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	MTYPE	COD1	CODIC 4/	CAVOL	SCSOR	RMKS
861952 STEPHENS		87SWELT1	SWW	2M	8.50	8.58	1320	72.0	
861953 HILL		87SWELT2	SWW	3M	8.52	8.62	1310	72.0	
861954 MALCOLM		87SWELT4	SWW	3M	8.75	8.74	1345	74.0	
861955 TRES		87SWELT5	CLUB	1H	8.84	8.87	1315	70.0	
861956 ORCW8314		87SWELT7	SWW	3L	8.55	8.55	1280	70.0Q-SCSOR	
861957 ORCW8519		87SWELT8	SWW	4H	8.52	8.68	1295	69.0Q-FYELD&SCSOR	
861958 ORCW8521		87SWELT9	SWW	4L	8.75	8.75	1265	69.0Q-SCSOR	
861959 ORCW8522		87SWELT10	SWW	4L	8.96	8.97	1280	69.0Q-SCSOR	
861960 ORCW8625		87SWELT11	SWW	3M	8.40	8.55	1320	68.0Q-P-SCSOR	
861961 ORCW8626		87SWELT12	SWW	3M	8.84	8.99	1350	70.0Q-SCSOR	
861962 ORCW8627		87SWELT13	SWW	4M	8.75	8.84	1275	74.0	
861963 ORCW8628		87SWELT14	SWW	3L	8.72	8.72	1245	68.0Q-P-SCSOR	
861964 ORCW8629		87SWELT15	SWW	3L	8.80	8.67	1255	75.0	
861965 ORCW8630		87SWELT16	SWW	1M	9.25	9.23	1265	68.0Q-P-SCSOR	
861966 ORCW8631		87SWELT17	SWW	2M	8.95	8.96	1260	73.0	
861967 ORCW8632		87SWELT18	SWW	4M	8.62	8.67	1265	75.0	
861968 ORCW8633		87SWELT19	SWW	3M	8.55	8.68	1300	73.0 P-FYELD	
861969 ORCW8634		87SWELT20	SWW	3M	8.74	8.76	1345	81.0Q-FYELD	
861970 ORCW8635		87SWELT21	SWW	3L	8.90	8.90	1355	80.0Q-FYELD	
861971 ORCW8637		87SWELT22	SWW	4M	8.55	8.62	1255	71.0Q-SCSOR&FYELD	

COMMENTS: Several of these selections appear very good in overall quality (Footnoted 5/) and would warrant further testing.

Q = Questionable; P = Poor



NURSCO 61

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
861972 WANSE		87HRELT1	HRW	63.4	72.9	0.40	86.8	10.0	61.6	8M
861973 STEPHENS		87HRELT2	SWW	58.9	71.9	0.41	82.3	10.3	55.6	3M
861974 CENTURA		87HRELT3	HRW	63.4	68.0	0.39	79.5	9.9	62.4	8M
861975 HATTON		87HRELT4	HRW	64.6	73.0	0.46	84.3	9.5	61.3	6M
861976 BATUM		87HRELT5	HRW	60.3	72.2	0.45	83.5	9.6	63.0	4H
861977 ORCR8313		6/87HRELT7	HRW	64.0	73.2	0.42	87.0	10.3	62.8	8M
861978 ORCR8414		87HRELT8	HRW	63.1	70.7	0.41	83.4	10.5	63.5	8M
861979 TSN-B2		6/87HRELT9	HRW	60.5	74.0	0.42	88.0	10.4	61.4	8M
861980 ORCR8511		87HRELT10	HRW	61.8	64.9	0.48	70.7	11.1	63.3	4H
861981 ORCR8512		87HRELT11	HRW	61.5	70.2	0.45	80.7	9.1	62.4	6L
861982 ORCR8601		6/87HRELT12	HRW	64.2	72.1	0.38	87.4	10.4	63.6	8M
861983 ORCR8602		87HRELT13	HRW	61.9	68.2	0.38	80.3	10.3	63.2	8M
861984 ORCR8603		87HRELT14	HRW	62.8	72.2	0.40	84.5	10.4	62.9	6M
861985 ORCR8604		87HRELT15	HRW	63.6	72.5	0.41	85.6	10.7	61.9	8M
861986 ORCR8608		87HRELT16	HWW	64.1	70.9	0.42	81.7	9.7	63.8	7M
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
861972 WANSE		87HRELT1	HRW	63.3	63.3	5.0	855	855	3	
861973 STEPHENS		87HRELT2	SWW	56.6	56.3	2.3	830	812	3	
861974 CENTURA		87HRELT3	HRW	64.0	64.1	4.5	770	776	3	
861975 HATTON		87HRELT4	HRW	62.5	63.0	4.1	785	816	4	
861976 BATUM		87HRELT5	HRW	64.3	64.7	3.6	825	850	4	
861977 ORCR8313		87HRELT7	HRW	64.8	64.5	6.7	800	781	3	Q-LVOL
861978 ORCR8414		87HRELT8	HRW	65.7	65.2	3.6	825	794	4	Q-LVOL&FYELD
861979 TSN-B2		87HRELT9	HRW	63.5	63.1	4.6	860	835	4	
861980 ORCR8511		87HRELT10	HRW	66.1	65.0	3.6	820	752	3	P-MILLING
861981 ORCR8512		87HRELT11	HRW	63.2	64.1	4.7	690	746	6	P-LVOL,BCRGR&FYELD
861982 ORCR8601		87HRELT12	HRW	65.7	65.3	4.1	825	800	3	
861983 ORCR8602		87HRELT13	HRW	65.2	64.9	5.1	750	731	4	P-FYELD&LVOL
861984 ORCR8603		87HRELT14	HRW	65.0	64.6	3.9	735	710	5	P-LVOL&BCRGR
861985 ORCR8604		87HRELT15	HRW	64.3	63.6	5.1	750	707	6	P-LVOL&BCRGR
861986 ORCR8608		87HRELT16	HWW	65.2	65.5	3.6	735	754	4	Q-LVOL&BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 145 Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Bread crumb grain was heavy among the check varieties. Experimental lines were judged accordingly.

Q = Questionable; P = Poor





NURSCO 63

CANADA

M.S. KALDY

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/
861993	ROCKYFORD-BUSMAN		SWS	62.4	67.7	0.38	77.6	8.6	53.8
861994	TWO HILLS		SWS	60.8	67.6	0.38	77.4	9.4	53.9
861995	BYEMOOR		SWS	62.0	71.7	0.45	80.2	8.5	55.3
LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC 4/	CAVOL	SCSOR	RMKS
861993	ROCKYFORD-BUSMAN		SWS	2M	8.60	8.56	1160	66.0	P-FYELD&SCSCOR
861994	TWO HILLS		SWS	2M	8.62	8.67	1190	69.0	P-FYELD
861995	BYEMOOR		SWS	2M	8.80	8.74	1160	67.0	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

## COMMENTS:

These 3 samples of western Canadian soft white spring wheat were milled and baked in cooperation with Dr. M.S. Kaldy at the Research Station, Plant Science Section, Lethbridge, Alberta, Canada, as a follow up to previous work.

P = Poor



NURSCO 64

HERMISTON, OR

W. MCPROUD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	CODI	CODIC	MTYPE	RMKS
					1/			1/	3/		4/		
350518*	DAWS												
350519	STEPHENS	CI017419	SWW	62.0	70.6	0.45	82.6	9.8	54.6	8.90		8.99	2M
350520	PBI-79-WW-57A	CI017596	SWW	60.4	73.5	0.47	85.0	9.4	53.8	9.06		9.11	1M
350521	PBI-79-WW-96A		6/SWW	61.6	72.0	0.48	81.9	9.0	53.8	9.25		9.25	2M
350522	PBI-79-WW-130A		6/SWW	62.0	73.2	0.48	84.0	9.7	54.4	9.07		9.15	2M
			6/SWW	62.0	73.9	0.50	83.6	9.3	54.5	9.12		9.16	2M
350523	PBI-79-WW-130B		6/SWW	61.6	73.1	0.50	82.1	9.3	55.4	9.02		9.06	3M
350524	PBI-80-WW-3		6/SWW	62.4	73.1	0.50	82.1	9.2	56.6	9.19		9.21	2M
350525	PBI-80-WW-5		6/SWW	62.0	73.2	0.50	82.2	9.3	57.4	9.06		9.10	3M
350526	PBI-80-WW-6		6/SWW	61.2	72.4	0.48	82.5	9.1	56.3	9.36		9.37	3M
350527	PBI-80-WW-9		6/SWW	61.2	70.8	0.49	80.1	9.5	58.3	8.95		9.00	3M
350528	PBI-80-WW-23		6/SWW	62.0	72.9	0.49	82.5	9.2	57.0	9.15		9.17	3M
350529	HYSLOP	CI014564	SWW	60.4	71.8	0.49	81.1	9.6	58.0	9.16		9.24	3M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: All of these selections appear nearly equal to Daws and/or Stephens and Hyslop in both milling and baking properties.

\*350000 is the second set of the 1986 crop.



NURSCO 65

CULDESAC, ID

W. MCPROUD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	CODI	CODIC	MTYPE	RMKS
1/ 3/ 4/													
350530*	STEPHENS	C1017596	SWW	60.4	73.6	0.42	87.8	10.1	57.9	9.29			
350531	DAWS	C1017419	SWW	62.0	70.2	0.39	85.9	10.2	58.4	8.90			9.19 2M
350532	NUGAINES		SWW	63.2	70.6	0.38	87.0	9.6	58.7	9.21			8.81 2M
350533	PBI-80-WW-1		6/SWW	59.2	73.1	0.40	88.6	10.5	57.9	9.22			9.05 3M
350534	PBI-80-WW-3		SWW	60.8	71.5	0.43	84.7	10.3	57.6	8.96			9.17 2M
													Q-CODI
350535	PBI-80-WW-5		6/SWW	61.6	70.9	0.42	84.5	10.1	58.0	9.36			9.26 3L
350536	PBI-80-WW-6		6/SWW	60.4	71.1	0.42	85.1	9.8	57.7	9.15			9.02 3L
350537	PBI-80-WW-9		SWW	60.4	69.7	0.41	83.6	10.3	59.6	9.12			9.05 3M
350538	PBI-80-WW-23		6/SWW	61.2	71.4	0.42	85.2	10.0	58.4	9.20			9.09 3L
350539	PBI-83-WW-12		SWW	61.2	68.8	0.40	83.3	10.6	58.8	9.20			9.16 2M
350540	PBI-83-WW-22		SWW	60.8	67.7	0.40	81.6	11.7	57.7	8.92			9.00 1M
350541	PBI-83-WW-23		SWW	61.6	69.7	0.40	84.6	11.6	58.3	9.10			9.17 1M
350542	PBI-83-WW-35		SWW	59.6	68.3	0.38	83.8	11.4	58.4	8.81			Q-FYELD
350543	PBI-83-WW-36		SWW	62.0	68.1	0.38	83.3	12.1	55.8	8.71			Q-FYELD&CODI
350544	PBI-83-WW-41		6/SWW	59.2	68.3	0.33	87.3	11.6	57.8	9.06			Q-FYELD&CODI
350545	PBI-83-WW-42*												
350546	PBI-83-WW-43		SWW	57.6	68.7	0.40	83.2	11.2	57.6	9.32			Q-FYELD
350547	PBI-83-WW-44		SWW	58.0	68.7	0.38	84.3	11.4	57.4	9.09			Q-FYELD
350548	PBI-83-WW-53		6/SWW	61.6	69.1	0.32	88.5	10.7	57.8	9.21			9.18 2M
350549	PBI-83-WW-56		6/SWW	60.0	72.9	0.39	89.2	10.5	58.1	9.12			9.07 2M
			5/SWW	60.4	75.6	0.38	93.0	10.5	58.1	9.29			9.23 2M
350550	PBI-83-WW-57		6/SWW	62.4	73.2	0.40	88.7	10.1	58.4	9.11			9.01 2M
350551	PBI-83-WW-58		6/SWW	62.4	73.0	0.40	88.9	10.5	58.1	9.25			9.19 2M
350552	PBI-83-WW-59		6/SWW	62.0	71.8	0.43	85.0	10.1	57.9	9.15			9.05 2M
350553	PBI-83-WW-99		SWW	61.2	68.7	0.44	80.6	10.3	58.2	8.85			Q-FYELD&CODI
350554	PBI-83-WW-110		SWW	60.8	68.5	0.43	81.1	12.3	60.7	8.79			Q-FYELD&CODI
350555	PBI-83-WW-111		SWW	63.6	68.5	0.43	80.9	10.9	59.5	8.72			Q-FYELD&CODI
350556	PBI-83-WW-134		6/SWW	61.6	71.4	0.39	87.2	10.6	58.3	9.11			9.07 2M
350557	PBI-83-WW-169		SWW	61.6	72.7	0.42	87.2	11.8	57.6	8.42			P-CODI
350558	PBI-83-WW-176*		5/SWW	63.2	73.1	0.36	91.0	10.6	58.0	9.46			9.42 2M
350559	PBI-83-WW-184		SWW	63.2	70.1	0.44	82.2	11.2	57.3	8.85			Q-CODI
350560	PBI-83-WW-186		SWW	62.0	69.9	0.44	82.0	10.8	57.7	9.16			Q-FYELD
350561	PBI-83-WW-191		6/SWW	61.2	73.0	0.42	87.5	10.9	57.5	9.12			9.11 2M
350562	PBI-83-WW-196		6/SWW	62.4	69.9	0.41	83.9	10.7	57.7	9.15			9.12 2M
350563	PBI-85-WW-1		6/SWW	62.8	71.8	0.35	90.1	11.4	57.0	8.92			Q-FYELD
350564	PBI-85-WW-5		5/SWW	60.8	73.5	0.39	89.7	10.8	57.6	9.06			9.04 2M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

\*350000 is the second set of the 1986 crop.





NURSCO 55

CULDESAC, ID

W. MCPROUD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH		MSCOR	FPROT	MABSC		CODI	CODIC	MTYPE	RMKS
						1/				1/	3/			4/	
350565	PBI-85-WW-6		6/SWW	62.4	71.6	0.38		88.1	11.4	58.4		8.99	9.03	2M	Q-FYELD&CODI
350566	PBI-85-WW-9		SWW	59.6	69.0	0.40		83.7	11.3	58.6		8.85	8.88	1H	
350567	PBI-85-F-65		5/SWW	62.8	73.3	0.37		90.9	12.0	59.0		9.05	9.16	6M	

COMMENTS: Many of these selections (footnoted) have overall quality equal to the check varieties. Several had poorer milling properties and/or cookie spreads (See Remarks).

Q = Questionable; P = Poor



NURSCO 66

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
350568*	MCKAY	SPAL1-1	HRS	62.8	73.0	0.37	89.4	9.8	60.9	3M
350569	WAMPUM	SPAL1-2	HRS	64.4	71.9	0.39	87.0	11.9	64.4	3H
350570	ALT850007	SPAL1-3	HRS	63.6	69.6	0.41	83.7	10.4	61.3	3M
350571	ALT850008	SPAL1-4	HRS	63.2	58.9	0.40	73.0	11.0	66.5	3H
350572	ALT850053	6/SPAL1-8	HRS	64.8	69.6	0.35	86.6	12.9	66.8	5H
350573	ALT850063	6/SPAL1-11	HRS	62.8	70.5	0.44	83.3	12.1	63.4	2H
350574	ALT850074	5/SPAL1-12	HRS	63.6	72.3	0.44	85.1	12.5	65.2	2H
350575	ALT850118	SPAL1-17	HRS	63.6	68.9	0.41	82.7	11.1	66.1	3H
350576	ALT850119	6/SPAL1-18	HRS	63.6	70.8	0.41	84.7	11.5	65.0	3H
350577	ALT850132	6/SPAL1-21	HRS	66.0	72.1	0.34	90.0	11.7	64.2	3H
350578	ALT850153	6/SPAL1-24	HRS	63.6	66.2	0.31	85.3	12.2	65.0	2H
350579	ALT850162	6/SPAL1-27	HRS	63.2	71.9	0.41	86.1	13.2	64.1	3H
350580	ALT850173	6/SPAL1-28	HRS	62.0	70.2	0.45	82.1	13.2	65.5	3H
350581	ALT850179	6/SPAL1-29	HRS	64.0	70.8	0.43	83.7	12.8	64.9	3H
350582	ALP850011	6/SPAL1-31	HRS	62.0	70.1	0.43	83.2	13.7	65.8	2H
350583	ALP850015	5/SPAL1-34	HRS	64.4	70.4	0.36	87.1	11.6	65.3	5H
350584	ALP850016	6/SPAL1-35	HRS	64.0	70.7	0.39	85.8	13.1	63.4	3H
350585	ALP850018	SPAL1-36	HRS	61.6	68.1	0.36	84.8	11.9	61.3	3M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

\*350000 are the second group of the 1986 crop.



NURSCO 66

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
350568	MCKAY	SPAL1-1	HRS	59.9	62.1	2.5	850	986	4	
350569	WAMPUM	SPAL1-2	HRS	65.5	65.6	2.6	1010	1016	4	
350570	ALI850007	SPAL1-3	HRS	60.4	62.0	1.4	775	874	7	P-MTIME, LVOL&BCRGR
350571	ALI850008	SPAL1-4	HRS	66.2	67.2	3.1	980	1042	4	VP-MILLING
350572	ALI850053	SPAL1-8	HRS	68.9	68.0	3.7	1010	954	4	
350573	ALI850063	SPAL1-11	HRS	64.2	64.1	1.7	955	949	3	Q-MTIME
350574	ALI850074	SPAL1-12	HRS	67.4	66.9	2.6	1005	974	2	
350575	ALI850118	SPAL1-17	HRS	66.4	67.3	2.6	910	966	2	Q-FYELD
350576	ALI850119	SPAL1-18	HRS	66.2	66.7	2.8	935	966	4	Q-FYELD
350577	ALI850132	SPAL1-21	HRS	64.6	64.9	2.2	935	954	3	Q-MTIME
350578	ALI850153	SPAL1-24	HRS	65.9	65.7	2.4	1075	1063	2	Q-FYELD
350579	ALI850162	SPAL1-27	HRS	66.0	64.8	2.6	1040	966	2	
350580	ALI850173	SPAL1-28	HRS	67.9	66.7	2.6	1065	991	3	Q-MSCOR
350581	ALI850179	SPAL1-29	HRS	67.4	66.6	3.2	1020	970	2	Q-MSCOR
350582	ALP850011	SPAL1-31	HRS	69.2	67.5	2.9	1075	970	2	Q-MSCOR
350583	ALP850015	SPAL1-34	HRS	66.6	67.0	3.5	960	985	2	
350584	ALP850016	SPAL1-35	HRS	66.2	65.1	2.8	980	912	2	Q-LVOL
350585	ALP850018	SPAL1-36	HRS	62.9	63.0	2.9	820	826	6	P-FYELD, LVOL&BCRGR

COMMENTS: The baking properties of this nursery appear to be determinately influenced by the year/location, as indicated by the short dough mixing times and heavy crumb grains of McKay and Wampum. Experimental selections were judged accordingly. Several appear equal or better than the check varieties. The outstanding selections are Nos. 12 and 34.

P = Poor; VP = Very Poor; Q = Questionable



NURSCO 67

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
350586*	WAMPUM									
350587	ALT850415	1614	HRS	65.2	69.8	0.41	84.0	11.0	64.3	2H
350588	ALT850426	1811	HRS	65.2	71.3	0.38	87.0	13.1	64.2	2H
350589	MCKAY		HRS	62.8	71.0	0.39	86.3	14.2	66.2	2H
350590	ALT850437	1811	HRS	64.0	72.1	0.36	89.1	10.0	64.5	3M
			HRS	62.8	71.2	0.39	86.3	13.3	65.4	3H
350591	ALT850503	1614	HRS	63.6	71.8	0.41	86.1	13.7	65.7	3H
350592	ALT850509	1614	HRS	64.0	70.0	0.40	84.7	12.5	64.5	2H
350593	ALT850527	1811	HRS	60.4	69.5	0.42	82.9	12.6	64.9	2H
350594	ALT850576	1814	HRS	64.4	70.1	0.35	87.4	13.4	67.5	3H
350595	ALP850015		HRS	64.0	69.5	0.35	86.7	12.2	66.5	5H
350596	ALP850016		HRS	64.0	71.2	0.41	85.5	12.8	65.5	3H
350597	ALP850018		HRS	62.8	69.9	0.36	86.4	12.1	63.7	3M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
350586	WAMPUM									
350587	ALT850415	1614	HRS	62.5	64.5	1.3	825	949	6	Q-MTIME
350588	ALT850426	1811	HRS	65.5	65.4	2.2	1035	1029	2	Q-MTIME
350589	MCKAY		HRS	67.6	66.4	2.2	1155	1081	2	Q-MTIME
350590	ALT850437	1811	HRS	61.7	64.7	1.9	900	1086	6	P-MTIME&BCRGR
			HRS	66.9	66.6	3.3	1000	981	4	P-BCRGR
350591	ALT850503	1614	HRS	68.1	67.4	3.2	1040	997	2	
350592	ALT850509	1614	HRS	65.7	66.2	2.2	980	1011	2	Q-MTIME
350593	ALT850527	1811	HRS	66.2	66.6	2.3	945	970	2	Q-MTIME
350594	ALT850576	1814	HRS	69.6	69.2	2.3	990	965	3	Q-MTIME
350595	ALP850015		HRS	67.4	68.2	3.4	950	1000	2	
350596	ALP850016		HRS	67.0	67.2	2.6	935	947	2	
350597	ALP850018		HRS	64.5	65.4	2.0	800	856	5	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 13% Protein.

4/ Observed Values Corrected to 13% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: It appears very questionable whether the check sample Wampum is correctly identified. It is very atypical in dough mixing and baking quality for Wampum. Many of the selections in the nursery appear promising, however, several short in mixing time did well in the bread test.

\*350000 are the second group of the 1986 crop.

Q = Questionable; P = Poor





NURSCO 68

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
*350598	MCKAY	SPHW4-1	HRS	65.2	71.8	0.34	89.8	10.2	64.8	6H
350599	WAMPUM	SPHW4-2	HRS	66.0	69.4	0.33	87.7	11.4	66.1	3H
350600	BORAH	SPHW4-3	HRS	64.8	70.9	0.29	91.1	12.0	65.9	3H
350601	MPC850710	CM66439	HWS	65.2	68.8	0.36	85.6	11.4	63.6	3H
350602	MPC850712	CM66684	HWS	65.6	68.8	0.39	83.9	11.9	65.3	3H
350603	MPC850746	CM69560	HWS	66.0	68.1	0.32	86.7	10.8	61.1	4M
350604	MPC850751	CM69639	HWS	66.8	68.9	0.35	85.9	11.1	64.5	3H
350605	MPC850769	CMH77A	HWS	65.2	72.3	0.32	91.1	10.9	63.5	6H
350606	MPC850784	CMH79	HWS	64.8	69.7	0.36	86.2	13.5	68.3	6H
350607	MPC850791	CMH79	HWS	64.4	71.0	0.32	89.6	12.3	64.9	6H
350608	MPC850992	SWM6966	HWS	66.4	68.6	0.33	87.0	10.7	65.1	4H
350609	MPC851029	CM49912	HWS	64.0	67.6	0.39	82.8	11.1	63.1	6M
350610	MPC851041	CM33027	HWS	64.0	66.0	0.36	82.3	12.4	64.3	2H
350611	MPC851059	CM43473	HWS	64.4	63.4	0.36	79.5	11.5	62.8	2H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
350598	MCKAY	SPHW4-1	HRS	64.7	66.5	5.6	875	987	2	
350599	WAMPUM	SPHW4-2	HRS	67.2	67.8	2.9	845	882	3	
350600	BORAH	SPHW4-3	HRS	67.6	67.6	3.0	895	895	2	Q-FYELD, LVOL&BCRGR
350601	MPC850710	CM66439	HWS	64.7	65.3	3.4	775	812	4 Q-FYELD, LVOL&BCRGR	
350602	MPC850712	CM66684	HWS	66.9	67.0	3.0	840	846	3 Q-FYELD&LVOL	
350603	MPC850746	CM69560	HWS	62.6	63.8	3.5	745	819	8 Q-FYELD P-BCRGR	
350604	MPC850751	CM69639	HWS	65.3	66.2	3.1	835	891	4 Q-BCRGR	
350605	MPC850769	CMH77A	HWS	64.1	65.2	4.7	875	943	4 Q-BCRGR	
350606	MPC850784	CMH79	HWS	70.0	68.5	5.6	975	882	2	
350607	MPC850791	CMH79	HWS	66.9	66.6	5.3	970	951	2	
350608	MPC850992	SWM6966	HWS	65.5	66.8	2.9	875	956	4 Q-BCRGR	
350609	MPC851029	CM49912	HWS	63.9	64.8	3.4	825	881	4 P-FYELD	
350610	MPC851041	CM33027	HWS	66.4	66.0	2.1	850	825	5 P-FYELD&LVOL&BCRGR	
350611	MPC851059	CM43473	HWS	64.0	64.5	2.1	820	851	6 P-FYELD, LVOL&BCRGR	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

COMMENTS: Selection #22 is particularly noteworthy for overall quality. See "Remarks" for deficiencies of selections not footnoted.

Q = Questionable; P = Poor

\*350000 is the second set of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 69

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
350612*	MCKAY	SPHR1-1	HRS	63.6	72.9	0.35	90.2	10.5	63.1	3H
350613	WAMPUM	SPHR1-2	HRS	64.8	69.9	0.42	83.3	10.6	64.1	2H
350614	BORAH	SPHR1-3	HRS	64.0	71.5	0.35	88.5	11.7	63.6	2H
350615	MSN850049	SPHR1-7	HRS	65.6	67.4	0.36	83.8	11.2	65.5	5H
350616	MSN850055	<u>6/</u> SPHR1-8	HRS	64.8	71.2	0.40	85.7	10.5	63.9	2H
350617	MSN850064	SPHR1-9	HRS	65.6	71.9	0.40	86.8	10.4	62.8	1H
350618	MSN850067	SPHR1-11	HRS	65.2	68.7	0.39	83.6	9.1	64.5	6M
350619	MSN850079	<u>6/</u> SPHR1-12	HRS	63.6	70.6	0.41	84.5	12.0	65.1	3H
350620	MSN850135	SPHR1-14	HRS	64.4	70.5	0.40	85.0	9.7	59.6	2M
350621	MSN850206	<u>6/</u> SPHR1-15	HRS	63.2	70.1	0.34	87.7	10.6	64.3	2H
350622	MPC850049	SPHR1-21	HRS	64.4	71.6	0.38	87.1	11.8	63.4	2H
350623	MPC850122	SPHR1-26	HRS	64.8	67.7	0.41	81.7	9.8	62.2	2M
350624	MPC850123	SPHR1-27	HRS	65.2	67.9	0.40	82.1	9.5	62.5	2M
350625	MPC850150	<u>6/</u> SPHR1-28	HRS	64.0	68.3	0.41	82.4	10.5	63.5	2H
350626	MPC850184	SPHR1-31	HRS	64.8	66.9	0.46	78.1	11.1	59.3	1H
350627	MPC850299	SPHR1-36	HRS	63.6	68.7	0.41	82.4	10.5	58.5	1H

1/ Observed Values Corrected to 14% Moisture Basis.5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture Corrected to 11% Protein.6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 11% Protein.

\*350000 are the second group of the 1986 crop.



NURSCO 69

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
350612	MCKAY	SPHR1-1	HRS	64.3	64.8	3.0	890	921	4	
350613	WAMPUM	SPHR1-2	HRS	65.4	65.8	2.1	840	865	8	
350614	BORAH	SPHR1-3	HRS	66.0	65.3	2.1	925	882	4	
350615	MSN850049	SPHR1-7	HRS	67.4	67.2	3.4	810	798	6	P-LVOL&BCRGR
350616	MSN850055	SPHR1-8	HRS	65.1	65.6	2.2	890	921	2	
350617	MSN850064	SPHR1-9	HRS	62.4	63.0	1.0	770	807	6	P-MTIME, LVOL&BCRGR
350618	MSN850067	SPHR1-11	HRS	63.8	65.7	2.8	745	863	8	P-LVOL&BCRGR
350619	MSN850079	SPHR1-12	HRS	67.8	66.8	2.6	900	838	4	
350620	MSN850135	SPHR1-14	HRS	59.5	60.8	1.8	730	811	8	P-MTIME, LVOL&BCRGR
350621	MSN850206	SPHR1-15	HRS	64.1	64.5	1.7	915	940	4	Q-MTIME
350622	MPC850049	SPHR1-21	HRS	64.9	64.1	1.3	900	850	6	P-MTIME, BCRGR
350623	MPC850122	SPHR1-26	HRS	62.7	63.9	1.7	705	779	9	P-MTIME, LVOL&BCRGR
350624	MPC850123	SPHR1-27	HRS	62.7	64.2	1.8	710	803	9	P-MTIME, LVOL&BCRGR
350625	MPC850150	SPHR1-28	HRS	64.7	65.2	2.3	815	846	4	Q-LVOL
350626	MPC850184	SPHR1-31	HRS	60.6	60.5	1.4	715	709	9	
350627	MPC850299	SPHR1-36	HRS	57.7	58.2	1.0	575	606	9	

COMMENTS: Wampum, as in the SPAL2 Nursery, is very atypical in baking quality. McKay and Borah were also shorter in mix time and poorer than normal in loaf volume and crumb structure. Experimental lines were judged accordingly.

P = Poor; Q = Questionable





NURSCO 70

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT			MABSC	CODI	CODIC MTYPE			RMKS
								1/	2/	3/			4/	5/	6/	
350628*	OWENS															
350629	DIRKWIN	SPSWP-1	SWS	64.8	71.4	0.40	86.4	8.8	53.7	9.31	9.31	9.31	9.29	1M		
350630	TWIN	SPSWP-2	SWS	60.8	71.2	0.46	82.4	9.0	52.5	9.07	9.07	9.07	9.07	1M		
350631	MSN850010	SPSWP-3	SWS	61.2	71.4	0.48	81.7	8.5	53.5	9.32	9.32	9.32	9.25	1M		
350632	MSN850021	SPSWP-5	HWS	65.2	71.3	0.37	87.3	9.4	56.4	8.49	8.49	8.49	8.52	1H	P-CODI	
		SPSWP-6	HWS	65.6	70.3	0.37	86.3	9.4	57.4	8.42	8.42	8.42	8.46	2H	P-CODI	
350633	MSN850056	SPSWP-7	HWS	66.8	72.5	0.41	86.9	9.5	57.2	8.55	8.55	8.55	8.59	2M	P-CODI	
350634	MSN850096	SPSWP-9	HWS	66.0	70.1	0.46	81.8	9.7	56.5	8.47	8.47	8.47	8.53	1H	P-CODI	
350635	MSN850141	SPSWP-11	HWS	65.6	72.5	0.37	88.6	9.9	62.8	8.31	8.31	8.31	8.38	8M	P-CODI	
350636	MSN850208	SPSWP-12	HWS	64.4	73.1	0.37	89.4	10.9	59.6	8.59	8.59	8.59	8.74	2H	P-CODI	
350637	WON850031	6/ SPSWP-14	SWS	64.4	70.9	0.44	83.5	9.9	53.9	9.16	9.16	9.16	9.26	1H		
350638	WON850081	6/ SPSWP-19	SWS	64.0	70.9	0.44	83.3	9.3	52.7	9.41	9.41	9.41	9.45	1H		
350639	WON850097	6/ SPSWP-21	SWS	62.4	70.8	0.40	85.9	9.6	54.3	8.92	8.92	8.92	8.99	2H		
350640	WON850106	6/ SPSWP-22	SWS	65.6	70.3	0.39	86.0	9.5	54.5	9.39	9.39	9.39	9.44	3M		
350641	MPC850182	SPSWP-31	SWS	65.2	63.2	0.40	76.4	10.2	56.1	8.87	8.87	8.87	9.01	2H	P-FYELD	
350642	MPC850392	SPSWP-35	SWS	63.6	68.5	0.42	81.4	8.7	51.9	9.45	9.45	9.45	9.42	2M	Q-FYELD	
350643	MPC851139	6/ SPSWP-37	SWS	63.2	71.0	0.41	85.3	8.8	54.2	9.31	9.31	9.31	9.29	3M		
350644	MPC851133	6/ SPSWP-38	SWS	64.4	71.3	0.43	84.3	9.3	56.1	9.07	9.07	9.07	9.11	2H		
350645	MSN850093	SPSWP-39	SWS	64.8	66.5	0.38	81.3	9.8	56.2	9.24	9.24	9.24	9.33	1H	P-FYELD	

1/ Observed Values Corrected to 14% Moisture Basis.

2/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Note that SPSWP-5 through 12 are hard endosperm wheats. Hardness was reflected in poor cookie diameters.

\* 350000 are the second group of the 1986 crop.

P = Poor; Q = Questionable



NURSCO 71

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
350646*	MCKAY	SPHRE1	HRS	62.4	69.7	0.42	81.6	11.8	62.9	4H
350647	SHASTA	SPHRE2	HRS	63.2	73.7	0.42	86.5	12.0	62.5	4H
350648	BORAH	SPHRE3	HRS	62.4	73.9	0.39	87.9	12.4	62.8	3H
350649	ORS8512	SPHRE11	HRS	63.8	70.7	0.41	81.6	12.4	63.2	5H
350650	WESTBRED 906R	6/SPHRE5	HRS	62.2	71.5	0.42	82.3	13.3	64.9	5H
350651	WAMPUM	SPHRE6	HRS	63.2	70.3	0.42	80.7	12.1	64.0	4H
350652	ORS8508	6/SPHRE7	HRS	62.5	72.1	0.43	83.6	11.8	64.4	4H
350653	ORS8509	SPHRE8	HRS	61.8	69.9	0.43	79.6	12.4	64.7	4H
350654	ORS8510	6/SPHRE9	HRS	62.7	71.0	0.44	81.4	12.2	64.9	5H
350655	ORS8511	SPHRE10	HRS	62.7	67.8	0.39	78.4	12.6	63.4	4H
350656	ORS8415	SPHRE16	HRS	63.4	67.2	0.43	75.6	13.1	65.0	5H
350657	ORS8418	SPHRE18	HRS	64.4	67.8	0.40	78.8	12.2	66.2	5H
350658	ORS8422	SPHRE19	HRS	63.3	67.7	0.40	78.1	12.5	68.3	5H
350659	ORS8413	6/SPHRE21	HWS	61.9	71.5	0.43	83.0	12.0	66.0	5H
350660	ALP850015	6/SPHRE23	HRS	63.7	70.5	0.41	83.3	13.0	67.1	6H
350661	SLP850016	6/SPHRE24	HRS	63.5	72.0	0.44	81.6	12.8	65.7	5H
350662	ALP850017	6/SPHRE25	HRS	63.6	70.4	0.44	81.2	12.3	64.3	5H
350663	ALP850020	6/SPHRE27	HRS	64.0	73.3	0.53	80.6	13.9	65.8	5H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

\*350000 are the second group of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



## HRS ELITE

NURSCO 71

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
350646	MCKAY	SPHRE1	HRS	64.4	64.6	3.3	925	937	2	Q-FYELD
350647	SHASTA	SPHRE2	HRS	64.2	64.2	4.3	990	990	2	
350648	BORAH	SPHRE3	HRS	64.9	64.5	3.1	1005	980	2	
350649	ORS8512	SPHRE11	HRS	65.3	64.9	4.2	990	965	4	Q-MSCOR&BCRGR
350650	WESTBRED 906R	SPHRE5	HRS	67.9	66.6	4.2	985	904	2	
350651	WAMPUM	SPHRE6	HRS	65.8	65.7	3.2	935	929	4	Q-BCRGR
350652	ORS8508	SPHRE7	HRS	65.9	66.1	3.7	950	962	2	
350653	ORS8509	SPHRE8	HRS	66.8	66.4	3.6	940	915	3	Q-FYELD&BCRGR
350654	ORS8510	SPHRE9	HRS	66.8	66.6	5.2	955	943	2	
350655	ORS8511	SPHRE10	HRS	65.7	65.1	3.1	905	868	4	P-FYELD Q-LVOL&BCRGR
350656	ORS8415	SPHRE16	HRS	67.8	66.7	4.5	1000	932	1	P-FYELD Excel. Baking
350657	ORS8418	SPHRE18	HRS	68.1	67.9	4.1	945	933	4	P-FYELD&BCRGR
350658	ORS8422	SPHRE19	HRS	70.5	70.0	4.0	965	934	1	P-FYELD Excel. Baking
350659	ORS8413	SPHRE21	HWS	67.7	67.7	5.1	900	900	2	
350660	ALP850015	SPHRE23	HRS	69.8	68.8	5.5	995	933	2	
350661	SLP850016	SPHRE24	HRS	68.2	67.4	4.8	960	910	2	
350662	ALP850017	SPHRE25	HRS	66.3	66.0	4.6	910	891	3	
350663	ALP850020	SPHRE27	HRS	69.4	67.5	4.5	1010	892	2	

COMMENTS: McKay was abnormal in flour yield, while Shasta and Borah were typical. The weakest property of this HRS Elite group was the flour yield. The selections which gave flour yield intermediate to McKay and Borah and which had good baking properties are footnoted as promising.

Q = Questionable; P = Poor



NURSCO 72

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
						<u>1/</u>		<u>1/</u>	<u>3/</u>
350664* OWENS		SPSWE1	SWS	64.3	69.4	0.39	76.8	11.2	59.9
350665 TWIN		SPSWE2	SWS	62.2	66.2	0.46	68.6	11.0	57.8
350666 DIRKWIN		SPSWE3	SWS	61.1	68.5	0.43	74.5	10.4	58.1
350667 EDWALL		SPSWE4	SWS	62.1	69.7	0.39	79.0	10.3	58.0
350668 ORS8505	BSV50/CAN.S//VEE	SPSWE5	SWS	63.7	69.6	0.38	79.7	10.7	59.3
350669 ORS8501		<u>5/</u> SPSWE6	SWS	65.2	71.2	0.34	84.7	10.5	58.8
350670 ORS8506		<u>6/</u> SPSWE7	SWS	63.5	67.8	0.39	74.8	12.7	61.0
350671 ORS8507		<u>6/</u> SPSWE8	SWS	62.8	71.3	0.39	80.5	11.9	60.4
350672 ORS8427		SPSWE9	SWS	63.7	68.7	0.38	77.4	11.7	60.2

LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC	CAVOL	SCSOR	RMKS
						<u>4/</u>			
350664 OWENS		SPSWE1	SWS	2H	9.00	9.02	1280	75.0	
350665 TWIN		SPSWE2	SWS	3M	8.72	8.72	1200	63.0	P-FYELD&SCSOR
350666 DIRKWIN		SPSWE3	SWS	2M	8.59	8.52	1210	66.0	
350667 EDWALL		SPSWE4	SWS	2M	8.71	8.64	1230	67.0	
350668 ORS8505	BSV50/CAN.S//VEE	SPSWE5	SWS	2H	8.57	8.54	1185	64.0	Q-CODI&SCSOR
350669 ORS8501		SPSWE6	SWS	2H	8.99	8.93	1265	74.0	
350670 ORS8506		SPSWE7	SWS	4H	8.54	8.72	1210	65.0	
350671 ORS8507		SPSWE8	SWS	4H	8.66	8.76	1165	64.0	
350672 ORS8427		SPSWE9	SWS	4H	8.41	8.49	1200	66.0	Q-CODI

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: This group of samples were poor in milling (check included). They were high in protein for meaningful pastry flour evaluation.  
SPSWE6 appears significantly better in overall quality than the checks.

\* 350000 are the second group of the 1986 crop.

P = Poor; Q = Questionable





NURSCO 73

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
350673* MCKAY		SPHR1-1	HRS	63.6	73.1	0.36	89.7	9.9	59.6	3M
350674 WAMPUM		SPHR1-2	HRS	64.0	70.0	0.41	84.2	10.0	60.3	3M
350675 BORAH		SPHR1-3	HRS	63.6	71.5	0.35	88.9	10.7	60.4	2H
350676 MPC850308		6/SPHR1-5	HRS	65.2	70.9	0.45	82.7	10.5	60.5	2H
350677 MPC850309		SPHR1-6	HRS	63.2	68.5	0.40	82.8	10.9	59.6	2H
350678 MPC850329		SPHR1-11	HRS	63.6	69.7	0.40	84.4	10.9	58.8	1H
350679 MPC850367		SPHR1-13	HRS	62.0	69.5	0.41	83.6	10.4	60.3	2H
350680 MPC850375		SPHR1-14	HRS	62.8	69.7	0.40	84.3	9.1	58.9	1H
350681 MPC850381		SPHR1-16	HRS	63.6	65.9	0.38	81.6	10.2	59.3	2M
350682 MPC850384		SPHR1-17	HRS	64.8	71.3	0.41	85.5	10.4	58.7	1H
350683 MPC850388		SPHR1-18	HRS	63.0	71.3	0.40	85.7	10.3	59.2	1H
350684 MPC850420	GLENSON	SPHR1-23	HRS	63.6	67.7	0.47	78.5	10.2	58.4	2M
350685 MPC850604		SPHR1-25	HRS	63.2	65.3	0.43	78.1	10.2	58.2	1H
350686 MPC850777		SPHR1-29	HRS	62.4	67.0	0.44	79.3	10.3	58.8	3M
350687 MPC850922		SPHR1-33	HRS	62.8	63.7	0.43	76.4	10.6	58.2	1H
350688 MPC850923		SPHR1-34	HRS	64.0	66.2	0.42	79.6	10.1	58.3	1H
350689 MPC850926		SPHR1-35	HRS	63.6	65.4	0.45	77.3	9.4	59.1	1H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

\* 350000 are the second group of the 1986 crop.



NURSCO 73

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
350673	MCKAY	SPHR1-1	HRS	61.2	61.3	2.6	895	901	4	
350674	WAMPUM	SPHR1-2	HRS	62.0	62.0	1.7	820	820	7	
350675	BORAH	SPHR1-3	HRS	62.3	61.6	1.8	890	847	4	
350676	MPC850308	SPHR1-5	HRS	62.7	62.2	2.6	875	844	5	Q-BCRGR
350677	MPC850309	SPHR1-6	HRS	62.2	61.3	1.8	760	704	8	P-LVOL&BCRGR
350678	MPC850329	SPHR1-11	HRS	61.4	60.5	1.5	780	724	8	P-LVOL&BCRGR
350679	MPC850367	SPHR1-13	HRS	62.4	62.0	2.0	750	725	9	P-LVOL&BCRGR
350680	MPC850375	SPHR1-14	HRS	59.7	60.6	1.7	635	691	9	VP-LVOL&BCRGR
350681	MPC850381	SPHR1-16	HRS	61.2	61.0	1.8	785	773	8	P-LVOL,BCRGR&FYELD
350682	MPC850384	SPHR1-17	HRS	60.8	60.4	1.5	725	700	8	P-LVOL&BCRGR
350683	MPC850388	SPHR1-18	HRS	61.2	60.9	1.4	750	731	8	P-LVOL&BCRGR
350684	MPC850420	SPHR1-23	HRS	60.3	60.1	1.7	750	738	9	P-LVOL,BCRGR&FYELD
350685	MPC850604	SPHR1-25	HRS	60.1	59.9	1.2	635	623	9	P-LVOL,BCRGR&FYELD
350686	MPC850777	SPHR1-29	HRS	60.8	60.5	1.7	725	706	9	P-LVOL,BCRGR&FYELD
350687	MPC850922	SPHR1-33	HRS	60.5	59.9	1.4	610	573	9	P-LVOL,BCRGR&FYELD
350688	MPC850923	SPHR1-34	HRS	60.1	60.0	1.1	545	539	9	P-LVOL,BCRGR&FYELD
350689	MPC850926	SPHR1-35	HRS	60.2	60.8	1.7	605	642	9	P-LVOL,BCRGR&FYELD

COMMENTS: Despite good protein and test weight this location/year produced abnormal baking properties as shown by the check varieties. Mixing times were very short. The only selection that appears to have some promise is SPHR-5; all others are significantly poorer than the check varieties.

Q = Questionable; P = Poor; VP = Very Poor



NURSCO 74

MADRAS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
350690	* MCKAY	SPHR3-1	HRS	61.6	71.4	0.40	86.3	10.2	59.9	5H
350691	WAMPUM	SPHR3-2	HRS	62.4	69.1	0.43	82.3	10.6	61.0	3H
350692	BORAH	SPHR3-3	HRS	63.6	70.8	0.36	87.5	11.3	61.8	2H
350693	MPC850963	6/SPHR3-4	HRS	64.0	71.5	0.38	87.3	10.2	61.9	8M
350694	MPC851007	6/SPHR3-6	HRS	66.0	71.3	0.39	86.4	9.9	62.2	4H
350695	MPC851009	6/SPHR3-7	HRS	63.2	70.0	0.41	83.8	10.0	64.4	5H
350696	MPC851022	SPHR3-8	HRS	62.8	68.8	0.41	83.0	10.9	60.2	1H
350697	MPC851034	5/SPHR3-11	HRS	62.8	71.5	0.35	88.5	10.0	61.0	2H
350698	MPC851075	SPHR3-14	HRS	64.4	68.9	0.44	81.1	10.1	57.3	1H
350699	MPC851094	SPHR3-15	HRS	64.8	67.9	0.43	81.1	9.7	58.8	2M
350700	MPC851140	SPHR3-23	HRS	63.6	66.8	0.42	80.3	10.6	57.9	2M
350701	MPC851141	SPHR3-24	HRS	64.8	68.5	0.42	81.9	11.1	59.0	2M
350702	MPC851142	SPHR3-25	HRS	64.8	69.2	0.45	81.0	11.1	57.6	1H
350703	MPC850779	SPHR3-26	HRS	63.6	68.0	0.42	81.5	11.3	57.6	1H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
350690	MCKAY	SPHR3-1	HRS	60.3	60.1	4.0	935	923	2	
350691	WAMPUM	SPHR3-2	HRS	62.8	62.2	2.4	875	838	3	
350692	BORAH	SPHR3-3	HRS	64.8	63.5	2.0	905	824	3	
350693	MPC850963	SPHR3-4	HRS	63.8	63.6	4.3	885	873	2	
350694	MPC851007	SPHR3-6	HRS	64.8	64.9	3.1	820	826	2	Q-LVOL
350695	MPC851009	SPHR3-7	HRS	67.1	67.1	3.6	850	850	3	Q-LVOL
350696	MPC851022	SPHR3-8	HRS	62.8	61.9	1.8	765	709	8	P-MTIME, LVOL&BCRGR
350697	MPC851034	SPHR3-11	HRS	62.7	62.7	2.8	935	935	2	
350698	MPC851075	SPHR3-14	HRS	59.1	59.0	1.2	530	524	9	P-MTIME, LVOL&BCRGR
350699	MPC851094	SPHR3-15	HRS	60.2	60.5	1.8	770	789	9	P-MTIME, LVOL&BCRGR
350700	MPC851140	SPHR3-23	HRS	60.2	59.6	1.4	665	628	9	P-MTIME, LVOL&BCRGR
350701	MPC851141	SPHR3-24	HRS	61.8	60.7	1.3	710	642	8	P-MTIME, LVOL&BCRGR
350702	MPC851142	SPHR3-25	HRS	60.4	59.3	1.3	750	682	8	P-MTIME, LVOL&BCRGR
350703	MPC850779	SPHR3-26	HRS	60.6	59.3	1.3	700	619	8	P-MTIME, LVOL&BCRGR

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 10% Protein.4/ Observed Values Corrected to 10% Protein.

COMMENTS: The selections not footnoted as promising in overall quality for HRS wheats had very short and weak dough properties with accompanied poor loaf volume and bread crumb grain (See "Remarks").

P = Poor; Q = Questionable

\* 350000 are the second group of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.





NURSCO 75

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
350704*	MCKAY	SPHR4-1	HRS	64.4	73.3	0.44	85.9	11.0	63.6	3H
350705	WAMPUM	SPHR4-2	HRS	65.2	70.2	0.32	88.9	12.1	66.4	3H
350706	BORAH	SPHR4-3	HRS	63.6	72.7	0.27	94.0	12.9	65.9	3H
350707	MSN850121	SPHR4-5	HRS	64.8	69.8	0.31	89.1	11.7	64.4	2H
350708	MSN850145	6/ SPHR4-6	HRS	65.6	69.3	0.31	88.6	13.2	67.5	5H
350709	MPC850019	SPHR4-7	HRS	63.2	65.7	0.31	84.9	14.2	65.4	2H
350710	MCP850147	SPHR4-8	HRS	65.2	68.5	0.35	85.9	14.0	65.1	2H
350711	MPC850430	SPHR4-9	HRS	65.2	69.4	0.36	86.1	14.2	64.6	1H
350712	MPC850542	SPHR4-11	HRS	65.6	72.3	0.31	91.8	11.2	63.1	1H
350713	MPC850669	5/ SPHR4-12	HRS	65.2	70.1	0.34	87.6	13.7	68.3	3H
350714	MPC850719	SPHR4-13	HRS	64.4	71.2	0.36	88.0	12.5	64.4	2H
350715	MPC850815	SPHR4-14	HRS	64.4	70.0	0.34	88.0	13.8	66.8	2H
350716	MPC851014	SPHR4-17	HRS	64.4	71.5	0.35	88.6	11.4	64.7	2H
350717	MPC851018	SPHR4-18	HRS	65.0	68.1	0.33	86.0	12.8	65.7	1H
350718	MPC851134	6/ SPHR4-21	HRS	63.6	69.7	0.33	88.2	13.8	64.9	6M
350719	ALP850018	SPHR4-27	HRS	61.6	68.9	0.35	85.9	13.2	65.4	2H
350720	ALT850434	6/ SPHR4-39	HRS	61.6	69.4	0.34	87.0	14.2	67.8	5H

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 13% Protein.

4/ Observed Values Corrected to 13% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

\* 350000 are the second group of the 1986 crop.



NURSCO 7

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
350704	MCKAY	SPHR4-1	HRS	63.3	65.3	3.1	920	1044	3	
350705	WAMPUM	SPHR4-2	HRS	67.2	68.1	2.3	950	1006	2	
350706	BORAH	SPHR4-3	HRS	67.5	67.6	2.4	1015	1021	2	
350707	MSN850121	SPHR4-5	HRS	64.8	66.1	2.4	950	1031	6	P-BCRGR
350708	MSN850145	SPHR4-6	HRS	69.4	69.2	3.5	985	973	2	
350709	MPC850019	SPHR4-7	HRS	68.3	67.1	2.2	960	886	4	Q-MTIME&BCRGR
350710	MCP850147	SPHR4-8	HRS	67.8	66.8	1.9	975	913	4	Q-MTIME&BCRGR
350711	MPC850430	SPHR4-9	HRS	67.5	66.3	1.3	950	876	6	Q-MTIME&BCRGR
350712	MPC850542	SPHR4-11	HRS	62.0	63.8	1.2	775	887	8	P-MTIME,BCRGR&LVOL
350713	MPC850669	SPHR4-12	HRS	70.7	70.0	2.5	1080	1037	2	
350714	MPC850719	SPHR4-13	HRS	65.6	66.1	2.1	930	961	4	Q-MTIME&BCRGR
350715	MPC850815	SPHR4-14	HRS	68.3	67.5	1.7	1030	980	4	Q-MTIME&BCRGR
350716	MPC851014	SPHR4-17	HRS	63.8	65.4	1.4	900	999	4	Q-MTIME&BCRGR
350717	MPC851018	SPHR4-18	HRS	66.2	66.4	1.1	880	892	6	Q-MTIME&BCRGR
350718	MPC851134	SPHR4-21	HRS	67.4	66.6	2.8	980	930	2	
350719	ALP850018	SPHR4-27	HRS	67.3	67.1	1.9	935	923	4	Q-MTIME&BCRGR
350720	ALT850434	SPHR4-39	HRS	70.7	69.5	3.7	1035	961	2	Excellent Protein

COMMENTS: Four of these selections appear equal to or better than the check varieties in overall quality. The remaining have unsatisfactory dough mixing properties and bread crumb structure.

P = Poor; Q = Questionable



## NURSCO 76 CORVALLIS, OR W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
*350721	MCKAY	SPHW1-1	HRS	64.4	70.9	0.36	87.4	10.2	65.3	8M
350722	WAMPUM	SPHW1-2	HRS	64.8	68.3	0.37	84.5	10.8	66.1	4H
350723	BORAH	SPHW1-3	HRS	64.4	69.8	0.33	87.9	11.4	65.9	4H
350724	WON850040	SPHW1-8	HWS	64.8	67.6	0.34	85.4	11.2	66.8	2H
350725	WON850046	SPHW1-11	HWS	61.2	67.0	0.40	81.6	12.0	63.4	2H
350726	WON850049	SPHW1-12	HWS	59.2	66.4	0.42	79.8	12.6	61.6	1H
350727	WON850057	SPHW1-13	HWS	62.0	60.0	0.41	73.6	11.2	67.7	6H
350728	WON850063	SPHW1-14	HWS	62.8	68.3	0.39	83.6	10.7	64.3	3M
350729	WON850072	SPHW1-15	HWS	63.2	67.9	0.40	82.3	11.9	68.8	6H
350730	WON850078	SPHW1-17	HWS	63.2	64.9	0.41	78.5	10.8	66.5	2H
350731	MSN850009	6/SPHW1-24	HWS	65.6	68.5	0.36	85.0	11.5	67.2	4H
350732	MSN850023	SPHW1-25	HWS	65.6	66.1	0.34	83.7	11.8	69.0	4H
350733	MSN850046	6/SPHW1-26	HWS	64.4	69.5	0.39	84.3	11.2	68.1	5H
350734	MSN850146	SPHW1-27	HWS	64.0	66.8	0.37	83.1	13.2	67.2	3H
350735	MSN850040	6/SPHW1-28	HWS	63.6	69.8	0.36	86.4	11.6	63.3	3H
350736	MPC850042	SPHW1-29	HWS	64.0	65.7	0.34	83.3	12.9	67.6	5H
350737	MPC850054	6/SPHW1-31	HWS	66.0	70.7	0.33	88.9	12.1	67.8	5H
350738	MPC850111	SPHW1-35	HWS	65.2	66.5	0.35	83.5	11.6	68.4	3H
350739	MPC850112	SPHW1-36	HWS	64.0	66.8	0.36	83.3	12.2	68.0	3H

1/ Observed Values Corrected to 14% Moisture.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

\*350000 is the second set of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 76

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
350721	MCKAY	SPHW1-1	HRS	65.2	67.0	6.4	885	997	2	
350722	WAMPUM	SPHW1-2	HRS	65.6	66.8	3.1	825	899	3	
350723	BORAH	SPHW1-3	HRS	67.0	67.6	3.4	900	937	2	
350724	WON850040	SPHW1-8	HWS	66.2	67.0	2.4	805	855	5 P-MTIME, LVOL&BCRGR	
350725	WON850046	SPHW1-11	HWS	63.6	63.6	2.3	830	830	7 P-MTIME, LVOL&BCRGR	
350726	WON850049	SPHW1-12	HWS	62.4	61.8	1.1	770	733	9 P-MTIME, LVOL, BCRGR&FY	
350727	WON850057	SPHW1-13	HWS	68.6	69.4	7.0	885	935	2 P-FYELD Good Baking	
350728	WON850063	SPHW1-14	HWS	63.2	64.5	3.0	730	811	7 P-LVOL&BCRGR	
350729	WON850072	SPHW1-15	HWS	70.4	70.5	5.8	885	891	2 Q-P-FYELD	
350730	WON850078	SPHW1-17	HWS	65.5	66.7	1.7	805	879	6 P-FYELD, MTIME&BCRGR	
350731	MSN850009	SPHW1-24	HWS	67.4	67.9	3.5	880	911	3	
350732	MSN850023	SPHW1-25	HWS	69.5	69.7	3.4	910	922	2 P-FYELD	
350733	MSN850046	SPHW1-26	HWS	69.0	69.8	4.3	850	900	2	
350734	MSN850146	SPHW1-27	HWS	69.6	68.4	3.0	890	816	3 P-FYELD	
350735	MSN850040	SPHW1-28	HWS	64.6	65.0	3.4	865	890	3	
350736	MPC850042	SPHW1-29	HWS	70.2	69.3	3.9	890	834	5 P-FYELD&BCRGR	
350737	MPC850054	SPHW1-31	HWS	69.6	69.5	4.3	910	904	3	
350738	MPC850111	SPHW1-35	HWS	68.7	69.1	2.5	845	870	4 P-FYELD	
350739	MPC850112	SPHW1-36	HWS	69.9	69.7	3.1	875	863	4 P-FYELD	

COMMENTS: Many of these selections are characterized by low flour yields. Selection No.'s 15 and 25 have good baking properties, but were unacceptable in flour yield.

P = Poor; Q = Questionable





NURSCO 77

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
*350740 MCKAY		SPHW2-1	HRS	64.4	72.3	0.34	89.9	10.7	65.3	8M
350741 WAMPUM		SPHW2-2	HRS	65.2	68.5	0.28	89.2	12.5	67.7	3H
350742 BORAH		SPHW2-3	HRS	64.8	71.4	0.30	91.1	12.6	67.3	3H
350743 MPC850120		6/ SPHW2-4	HWS	64.4	68.2	0.33	86.4	12.8	65.0	3H
350744 MPC850128		SPHW2-6	HWS	64.4	70.0	0.34	87.6	11.9	63.1	1H
350745 MPC850130		6/ SPHW2-8	HWS	65.6	69.7	0.31	88.9	11.7	66.7	5H
350746 MPC850135		6/ SPHW2-11	HWS	64.8	70.2	0.33	88.3	12.6	63.8	2H
350747 MPC850172		SPHW2-16	HWS	65.6	66.5	0.34	83.8	13.0	70.3	5H
350748 MPC850213		6/ SPHW2-27	HWS	64.8	68.5	0.33	86.8	13.0	69.5	5H
350749 MPC850239		SPHW2-28	HWS	65.6	66.4	0.38	82.0	11.6	64.3	3H
350750 MPC850311		SPHW2-34	HWS	64.4	65.3	0.39	80.1	10.6	63.6	2H
350751 MPC850318		SPHW2-35	HWS	64.4	66.1	0.39	81.2	12.3	63.6	4M

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
350740 MCKAY		SPHW2-1	HRS	65.7	67.0	5.9	945	1026	2	
350741 WAMPUM		SPHW2-2	HRS	69.9	69.4	2.8	955	924	3	
350742 BORAH		SPHW2-3	HRS	69.6	69.0	3.1	1025	988	2	
350743 MPC850120		SPHW2-4	HWS	67.5	66.7	3.1	990	940	2 Q-FYELD	
350744 MPC850128		SPHW2-6	HWS	63.7	63.8	1.0	880	886	6 P-MTIME, LVOL&BCRGR	
350745 MPC850130		SPHW2-8	HWS	68.1	68.4	4.4	990	1009	2	
350746 MPC850135		SPHW2-11	HWS	66.1	65.5	2.5	935	898	3 Q-LVOL	
350747 MPC850172		SPHW2-16	HWS	73.0	72.0	3.7	965	903	3 P-FYELD	
350748 MPC850213		SPHW2-27	HWS	72.2	71.2	5.1	1025	963	2	
350749 MPC850239		SPHW2-28	HWS	65.6	66.0	3.0	955	980	4 P-FYELD Q-BCRGR	
350750 MPC850311		SPHW2-34	HWS	64.9	66.3	2.4	805	892	5 P-FYELD, Q BCRGR	
350751 MPC850318		SPHW2-35	HWS	66.6	66.3	2.4	860	841	6 P-FYELD, Q-BCRGR	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: See "Remarks" for deficiencies of those not footnoted a promising in overall quality.

Q = Questionable; P = Poor

\*350000 is the second set of the 1986 crop.



NURSCO 78

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
350752*	MCKAY	SPHW3-1	HRS	64.8	72.3	0.34	90.4	9.8	64.1	8M
350753	WAMPUM	SPHW3-2	HRS	64.8	68.8	0.34	86.5	10.3	65.5	4H
350754	BORAH	SPHW3-3	HRS	64.8	71.9	0.29	92.3	11.6	65.6	3H
350755	MPC850345	<u>6/</u> SPHW3-5	HWS	65.2	68.4	0.32	87.1	11.1	65.2	3H
350756	MPC850351	SPHW3-6	HWS	64.4	68.1	0.34	85.7	12.9	64.3	2H
350757	MPC850371	SPHW3-7	HWS	64.0	65.7	0.31	84.7	13.0	63.0	4M
350758	MPC850392	SPHW3-9	HWS	64.8	68.7	0.32	87.4	11.2	65.5	4H
350759	MPC850394	SPHW3-11	HWS	65.2	68.1	0.36	84.5	10.7	66.5	4H
350760	MPC85054	<u>6/</u> SPHW3-17	HWS	65.2	71.6	0.36	88.6	13.1	67.2	6H
350761	MPC850491	<u>6/</u> SPHW3-19	HWS	64.4	69.4	0.36	85.8	12.4	66.5	2H
350762	MPC850492	SPHW3-21	HWS	64.8	68.7	0.36	85.1	12.4	66.4	2H
350763	MPC850495	SPHW3-22	HWS	64.8	67.7	0.36	84.5	13.4	65.9	2H
350764	MPC850546	SPHW3-31	HWS	64.4	69.1	0.33	87.4	11.8	64.9	3M
350765	MPC850580	<u>6/</u> SPHW3-34	HWS	65.2	68.9	0.31	88.0	11.8	63.9	6M
350766	MPC850630	SPWH3-35	HWS	65.2	71.5	0.33	89.7	11.2	63.5	6M
350767	MPC850634	SPHW3-36	HWS	64.4	68.7	0.36	85.1	10.8	60.4	2M

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 12% Protein.4/ Observed Values Corrected to 12% Protein.

\*350000 is the second set of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.



NURSCO 78

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
350752	MCKAY	SPHW3-1	HRS	63.6	65.8	6.3	840	976	3	
350753	WAMPUM	SPHW3-2	HRS	65.5	67.2	2.8	810	915	4	
350754	BORAH	SPHW3-3	HRS	66.9	67.3	3.0	885	910	4	
350755	MPC850345	SPHW3-5	HWS	66.0	66.9	3.1	810	866	4	= Wampum
350756	MPC850351	SPHW3-6	HWS	66.9	66.0	2.3	805	749	5	P-MTIME, LVOL&BCRGR
350757	MPC850371	SPHW3-7	HWS	65.7	64.7	2.5	910	848	2	Q-MTIME P-FYELD
350758	MPC850392	SPHW3-9	HWS	66.4	67.2	3.3	775	825	3	Q-LVOL
350759	MPC850394	SPHW3-11	HWS	66.9	68.2	3.4	735	816	3	Q-LVOL
350760	MPC85054	SPHW3-17	HWS	70.0	68.9	5.4	900	832	2	Q-LVOL
350761	MPC850491	SPHW3-19	HWS	68.6	68.2	2.1	1000	975	4	P-MTIME
350762	MPC850492	SPHW3-21	HWS	68.5	68.1	1.9	940	915	4	P-MTIME
350763	MPC850495	SPHW3-22	HWS	68.0	66.6	1.5	1000	913	5	P-FYELD, MTIME&BCRGR
350764	MPC850546	SPHW3-31	HWS	66.4	66.6	2.0	830	842	5	P-MTIME&BCRGR
350765	MPC850580	SPHW3-34	HWS	65.4	65.6	3.0	835	847	3	Q-LVOL
350766	MPC850630	SPHW3-35	HWS	64.4	65.2	3.0	815	865	7	P-BCRGR
350767	MPC850634	SPHW3-36	HWS	59.9	61.1	1.1	855	929	7	P-MTIME&BCRGR

COMMENTS: Few of these selections have much promise as bread type wheats. See "Remarks" for major deficiencies.

P = Poor; Q = Questionable





NURSCO 79

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
*350768	MCKAY	SPHW5-1	HRS	64.8	73.3	0.31	92.5	10.7	64.5	3H
350769	WAMPUM	SPHW5-2	HRS	66.0	70.2	0.30	90.2	11.6	66.9	3H
350770	BORAH	SPHW5-3	HRS	65.2	71.9	0.27	93.1	12.5	65.8	2H
350771	MPK851071	SPHW5-5	HWS	65.2	69.8	0.33	87.8	11.6	65.5	3H
350772	MPK851107	<u>6/</u> SPHW5-8	HWS	64.0	70.4	0.35	87.5	12.3	62.7	3M
350773	MPK851109	SPHW5-9	HWS	66.4	70.3	0.30	90.0	12.8	60.3	1H
350774	MPK851143	SPHW5-16	HWS	64.8	71.5	0.35	88.8	11.3	62.3	2H
350775	MPK850714	SPHW5-18	HWS	66.4	70.2	0.40	84.8	12.2	62.3	2H

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
350768	MCKAY	SPHW5-1	HRS	63.4	64.7	3.4	905	986	2	
350769	WAMPUM	SPHW5-2	HRS	67.2	67.6	2.5	890	915	2	
350770	BORAH	SPHW5-3	HRS	68.0	67.5	2.8	980	949	2	
350771	MPK851071	SPHW5-5	HWS	66.8	67.2	3.0	830	855	3P-LVOL Q-BCRGR	
350772	MPK851107	SPHW5-8	HWS	64.7	64.4	2.3	965	946	3	
350773	MPK851109	SPHW5-9	HWS	62.8	62.0	1.4	875	825	6P-MTIME, LVOL&BCRGR	
350774	MPK851143	SPHW5-16	HWS	61.8	62.5	1.9	835	878	7P-MTIME, LVOL&BCRGR	
350775	MPK850714	SPHW5-18	HWS	62.7	62.5	2.5	915	903	4Q-BCRGR	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 12% Protein.4/ Observed Values Corrected to 12% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: See "Remarks" for deficiencies of the selections not footnoted as promising in overall quality.

P = Poor; Q = Questionabl.

\* 350000 is the second set of the 1986 crop.



NURSCO 80

CORVALLIS, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						<u>1/</u>		<u>1/</u>	<u>3/</u>		
* 350776	MCKAY	SPXW6-1	HRS	64.4	72.8	0.33	91.4	10.9	62.9	3H	63.0
350777	WAMPUM	SPXW6-2	HRS	65.6	70.7	0.31	89.8	11.4	64.1	3H	66.2
350778	GPC850271	SPXW6-9	HRS	65.6	69.2	0.29	89.7	12.1	66.8	4H	69.6
350779	GPC850560	SPXW6-12	HWS	65.6	70.3	0.39	85.5	12.6	62.4	2H	64.7
350780	GPC850655	SPXW6-14	HWS	64.8	70.3	0.37	86.6	11.8	61.9	3H	63.4
350781	GPC850724	SPXW6-15	HWS	65.6	69.2	0.36	86.1	11.9	63.1	4H	65.7
350782	GPC850806	SPXW6-17	HWS	64.4	70.4	0.35	87.6	10.9	63.8	3H	65.4
350783	TWIN	SPXW6-26	SWS	61.6	70.0	0.40	84.8	9.9	55.0	2M	53.6
350784	MSN850051	SPXW6-28	SWS	65.6	66.5	0.35	83.8	10.5	56.4	1H	54.6
350785	UNK850001	5/SPXW6-30	SWS	64.4	73.1	0.33	92.9	10.4	58.1	4M	59.2

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	CODI	CODIC	RMKS
				<u>3/</u>			<u>4/</u>			<u>4/</u>	
350776	MCKAY	SPXW6-1	HRS	63.1	2.9	995	1001	2	8.65	8.64	
350777	WAMPUM	SPXW6-2	HRS	65.8	2.2	970	945	2	8.37	8.41	
350778	GPC850271	SPXW6-9	HRS	68.5	3.2	965	897	3	8.20	8.29	Q-LVOL
350779	GPC850560	SPXW6-12	HWS	63.1	2.3	905	806	3	8.24	8.37	P-LVOL&MTIME
350780	GPC850655	SPXW6-14	HWS	62.6	2.5	940	890	3	8.09	8.15	Q-LVOL
350781	GPC850724	SPXW6-15	HWS	64.8	3.4	925	869	3	8.26	8.33	P-LVOL
350782	GPC850806	SPXW6-17	HWS	65.5	2.8	880	886	3	8.30	8.29	Q-LVOL
350783	TWIN	SPXW6-26	SWS	54.7	1.3	685	751	9	9.24	9.07	
350784	MSN850051	SPXW6-28	SWS	55.1	1.2	845	875	6	8.96	8.91	P-FYELD
350785	UNK850001	SPXW6-30	SWS	59.8	3.3	910	946	2	8.91	8.85	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected to 11% Protein.4/ Observed Values Corrected to 11% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: Selection SPXW6-30 is an outstanding sample for overall quality. Excellent flour yield, bread baking equal to Wampum, and cookie diameter nearly equal to Twin. It is a candidate for dual purpose type soft white wheat. The HWS selections were all low in bread volume as compared to either McKay or Wampum. The strongest are selections 6-9 and 6-15.

Q = Questionable; P = Poor

\*350000 are the second set of the 1986 crop.



NURSCO 81

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
* 350786	DIRKWIN	CI017745	SWS	61.5	69.4	0.39	79.8	10.4	53.7	2M	
350787	TWIN	CI014588	SWS	62.2	68.9	0.43	77.8	9.8	54.9	2M	
350788	WAMPUM	CI017691	HRS	63.2	71.5	0.41	84.2	10.8	62.5	3H	63.5
350789	MCKAY	CI017903	HRS	64.0	70.8	0.35	86.4	10.6	62.7	3H	65.0
350790	FEDERATION	CI004734	SWS	62.8	69.9	0.38	80.2	10.6	54.7	2M	
350791	POTAM 70/FIELDER	WA6918	SWS	63.9	58.8	0.39	63.4	10.1	56.1	5M	
350792	WAVERLY	CI017911	SWS	63.5	69.5	0.36	80.0	10.3	56.0	3M	
350793	EDWALL	PI477919	SWS	63.0	68.0	0.36	77.9	10.1	55.8	3M	
350794	CRESTONE	CI017858	SWS	62.5	68.2	0.40	77.3	10.0	55.3	3M	
350795	HORK/YMHK/KA//BB	ORS8413	HWS	64.7	69.5	0.37	82.8	10.8	64.8	4H	66.8
350796	STERLING//COWBIRDS'/STERLING	6/ ID0314	SWS	63.8	68.2	0.35	79.1	9.7	56.4	3M	
350797	OWENS	CI017904	SWS	64.1	67.5	0.33	78.7	9.7	56.1	3M	
350798	CMT/YR//MON.S	ORS8429	SWS	63.9	66.7	0.34	75.8	11.4	56.2	3M	
350799	ABERDEEN SEL.	6/ ID0249	SWS	63.4	68.9	0.36	78.9	10.2	56.5	2M	
350800	BORAH	CI017267	HRS	63.9	68.4	0.35	81.5	11.4	63.9	3H	66.0
350801	PENAWAWA	WA6920	SWS	63.6	67.1	0.38	75.5	9.9	56.7	3M	
350802	WS-1		SWS	63.9	67.1	0.35	77.1	9.7	59.5	6M	
350803	TREASURE	PI468962	SWS	63.8	71.9	0.36	85.6	9.5	57.0	3M	
350804	WESTBRED 906R		HRS	63.6	67.0	0.35	80.0	11.8	63.9	4H	68.4
350805	ABERDEEN SEL.	6/ ID0232	SWS	62.5	68.3	0.36	79.1	10.0	54.7	2M	

1/ Observed Values Corrected to 14% Moisture Basis.

2/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

\*350000 are the second set of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 81

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
350786 DIRKWIN		C1017745	SWS						8.21	8.26	
350787 TWIN		C1014588	SWS						8.29	8.26	
350788 WAMPUM		C1017691	HRS	62.7	3.1	960	910	3	8.10	8.16	
350789 MCKAY		C1017903	HRS	64.4	3.7	945	908	3	7.99	8.04	
350790 FEDERATION		C1004734	SWS						8.45	8.52	
350791 POTAM 70/FIELDER		WA6918	SWS						8.64	8.65	Very Low FYELD
350792 WAVERLY		C1017911	SWS						8.55	8.58	
350793 EDWALL		PI477919	SWS						8.51	8.52	
350794 CRESTONE		C1017858	SWS						8.59	8.59	
350795 HORK/YMHK/KA//BB		ORS8413	HWS	66.0	3.4	900	850	3	7.49	7.55	Q-LVOL
350796 STERLING//COWBIRDS'/STERLING		ID0314	SWS						8.44	8.40	Q-CODI
350797 OWENS		C1017904	SWS						8.69	8.65	
350798 CMT/YR//MON. S		ORS8429	SWS						8.40	8.55	P-FYELD Q- CODI
350799 ABERDEEN SEL.		ID0249	SWS						8.52	8.55	Q-CODI
350800 BORAH		C1017267	HRS	64.6	2.6	945	858	2	7.66	7.77	
350801 PENAWAWA		WA6920	SWS						8.76	8.75	
350802 WS-1			SWS						8.46	8.43	
350803 TREASURE		PI468962	SWS						8.90	8.84	
350804 WESTBRED 906R			HRS	66.6	3.7	1005	893	3	7.49	7.63	
350805 ABERDEEN SEL.		ID0232	SWS						8.84	8.84	

COMMENTS: These group of spring wheats were atypically low in flour yield. Experimental selections among them were judged accordingly. See "Remarks" for deficiencies.

Q = Questionable; P = Poor





NURSCO 82

MORO, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
* 350806	STEPHENS	C1017596	SWW	54.8	62.0	0.43	72.8	12.3	57.5	2M	
350807	BEZ/SPRAGUE SEL.18-27	6/85B-398	SWW	57.9	67.1	0.46	77.0	11.3	55.7	2M	
350808	1158-571/OD2(CB156)	85B-401	HRW	58.5	67.5	0.40	82.0	12.9	63.8	1H	63.9
350809	ANZA/MORIS NIMROD	85B-465	SWW	59.5	68.6	0.45	80.0	10.6	61.7	6M	
350810	TSN 750162/STEPHENS	6/85B-511	SWW	56.5	68.9	0.42	82.0	11.8	58.7	3M	
350811	SWD70250-01W-1P-1H-OH/ROEDEL	85B-549	HRW	57.0	69.7	0.39	84.7	12.9	63.4	2H	64.5
350812	1T62-61/3/14-53/ODIN/C113431	85B-564	HRW	59.5	69.1	0.39	84.3	11.4	63.0	8M	65.1
350813	VORO/STEPHENS	85B-581	SRW	57.1	67.3	0.43	79.1	10.9	60.7	3M	
350814	55-1744/7C/SU//RDL/3/SPN.OWW80054*	85B-590	HRW	57.6	69.1	0.45	80.4	12.5	63.9	2H	66.1
350815	YMH/HYS//SPN.OWW80027*	6/85B-592	SWW	56.4	60.9	0.43	71.4	12.0	60.6	2H	
350816	FIGARO/TALENT	85B-596	SWW	54.2	65.3	0.45	75.5	12.5	60.6	2H	
350817	PALMARESS/COMTAL/ADAM2	85B-634	SWW	55.2	67.8	0.45	78.9	12.0	60.9	2H	
350818	STEPHENS/MARIS NIMROD	6/85B-647	SWW	55.3	64.4	0.30	83.8	10.9	58.4	2M	
350819	TJB832/1475//CERCO	85B-667	SRW	55.4	62.1	0.48	69.8	11.6	61.0	4M	
350820	CERCO/SPRAGUE	85B-700	SWW	56.7	62.4	0.44	72.5	10.6	61.6	3M	
350821	942-13.RED	85B-713	SRW	57.8	61.3	0.41	72.9	10.9	59.2	2M	
350822	CERCO/FELI//WH4826	6/85B-729	SWW	54.2	65.0	0.40	78.1	11.2	59.7	3M	
350823	AMIGO/STEPHENS	6/85B-730	SWW	54.6	61.4	0.39	74.1	11.6	59.4	3M	
350824	TRES	C1017917	CLUB	56.3	55.7	0.45	63.4	11.9	58.2	2M	
350825	YAMHILL/HYSLOP.OWW68-07-2M6	85B-748	SWW	57.5	63.3	0.42	75.0	11.9	58.2	3M	
350826	SWD70250-01W-1P-OH/ROEDEL	85B-778	SWW	56.9	67.1	0.43	77.2	11.1	60.2	4M	
350827	VORO/MARIS NIMROD	85B-782	SRW	55.4	59.9	0.42	70.8	12.6	60.0	2H	
350828	PREDGONNATA/PALMARESS/ADAM2	85B-796	HRW	53.9	65.4	0.41	79.1	11.5	60.4	4M	60.6
350829	ANZA/MARIS NIMROD	85B-826	SRW	58.1	65.8	0.35	83.0	10.8	61.5	4M	
350830	VORO/CERCO	85B-827	HRW	54.4	66.3	0.41	80.3	11.3	61.4	4M	61.4
350831	YMH/HYS/3/58-182/DRC//SPN.OWW80019*	85B-841	SWW	57.1	64.1	0.41	76.5	11.6	63.4	2H	

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 12% Protein.

\*350000 are the second set of the 1986 crop.



NURSCO 82

MORO, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
350806	STEPHENS	C1017596	SWW						9.07	9.11	
350807	BEZ/SPRAGUE SEL.18-27	85B-398	SWW						9.15	9.07	
350808	IT58-571/OD2(CB156)	85B-401	HRW	63.0	1.2	930	874	4	8.25	8.32	P-MTIME&BCRGR
350809	ANZA/MORIS NIMROD	85B-465	SWW						8.39	8.23	VP-CODI
350810	TSN 750162/STEPHENS	85B-511	SWW						8.87	8.85	
350811	SWD70250-01W-1P-1H-OH/ROEDEL	85B-549	HRW	63.6	1.8	960	904	4	8.40	8.47	P-MTIME&BCRGR
350812	IT62-61/3/14-53/ODIN/C113431	85B-564	HRW	65.7	5.4	850	887	4	8.49	8.44	P-BCRGR
350813	VORO/STEPHENS	85B-581	SRW						8.79	8.67	P-CODI
350814	55-1744/7C/SU//RDL/3/SPN.OWW80054*	85B-590	HRW	65.6	2.0	955	924	4	8.35	8.39	P-MTIME&BCRGR
350815	YMH/HYS//SPN.OWW80027*	85B-592	SWW						8.92		
350816	FIGARO/TALENT	85B-596	SWW						8.71	8.77	Q-P-CODI
350817	PALMARESS/COMTAL/ADAM2	85B-634	SWW						8.65	8.65	P-CODI
350818	STEPHENS/MARIS NIMROD	85B-647	SWW						9.11	8.99	
350819	TJB832/1475//CERCO	85B-667	SRW						8.57	8.53	P-CODI
350820	CERCO/SPRAGUE	85B-700	SWW						8.82	8.67	P-CODI
350821	942-13. RED	85B-713	SRW						8.94	8.82	Q-CODI
350822	CERCO/FELI//WH4826	85B-729	SWW						8.92	8.84	Q-CODI
350823	AMIGO/STEPHENS	85B-730	SWW						8.89	8.84	Q-CODI
350824	TRES	C1017917	CLUB						8.74	8.73	
350825	YAMHILL/HYSLOP.OWW68-07-2M6	85B-748	SWW						8.82	8.81	Q-CODI
350826	SWD70250-01W-1P-OH/ROEDEL	85B-778	SWW						8.54	8.44	P-CODI
350827	VORO/MARIS NIMROD	85B-782	SRW						8.51	8.58	P-CODI
350828	PREDGONNAIA/PALMARESS/ADAM2	85B-796	HRW	61.1	2.4	915	946	4	8.60	8.56	P-MTIME&BCRGR
350829	ANZA/MARIS NIMROD	85B-826	SRW						8.94	8.81	Q-CODI
350830	VORO/CERCO	85B-827	HRW	62.1	2.6	870	913	6	8.59	8.53	P-BCRGR
350831	YMH/HYS/3/58-182/DRC//SPN.OWW80019*	85B-841	SWW						8.75	8.71	Q-CODI

COMMENTS: The seeds from this nursery were shriveled and low test weight, which is reflected in low flour yield, high ash, and low milling score, therefore, no attempt was made to evaluate milling quality. Cookie spread may also have been effected, but attempts were made to identify the better selections (footnoted).

P = Poor; VP = Very Poor; Q = Questionable



NURSCO 83

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	CODI	CODIC	MTYPE	RMKS
					1/	1/	1/	1/	3/	4/			
*350832	STEPHENS	C1017596	SWW	59.5	68.6	0.41	82.4	8.0	49.8	9.42		9.42	2L
350833	TJB788-1089/ALDAN	ORCR8615	HRW	62.8	67.6	0.37	83.5	8.1	57.6	8.46		8.47	8LQ-P-FYELD
350834	M1223-3D-1D(MT76-77-S29)ALD	ORCR8616	HRW	62.4	Samples mixed and lost in processing								
350835	CN0/IN1A/HN7/3/CC//CAL/SR	ORCR8619	HRW	64.3									
350836	C072-4660/TI-RESEL	ORCR8620	HRW	63.7	67.2	0.33	85.2	8.4	59.3	8.51		8.54	6LP-FYELD
350837	TAST/TORIM	ORCR8621	HRW	63.1	67.3	0.39	82.4	8.8	57.2	8.50		8.56	5LP-FYELD
350838	1523/DRC DWF/RIEB F1//3/WA5989	5/ ORCW8318	SWW	61.0	71.7	0.42	85.6	7.6	52.6	9.30		9.26	3L
350839	KVZ/3/HD/ON//BB/4/YOPR/3/55-1744//SU/	5/ ORCW8617	SWW	60.5	65.0	0.44	75.8	7.5	49.8	9.36		9.31	3L VP-FYELD
350840	HYS/CER.F1//YMH/HYS	5/ ORCW8618	SWW	59.9	73.0	0.43	86.4	7.8	52.2	9.24		9.22	3L
350841	TJB841/1543//WA5987	ORCW8619	SWW	61.4	67.2	0.42	80.2	7.8	51.5	9.40		9.38	3L Q-FYELD
350842	V6707/BNN	6/ ORCW8622	SWW	60.5	68.8	0.36	85.5	8.2	53.1	9.26		9.28	3L
350843	TJB240-1834/YMH	ORCW8623	HRW	60.3	68.4	0.39	83.3	7.7	59.8	8.69		8.66	6L Good Mixo
350844	CER/YMH/HYS	6/ ORCW8626	SWW	62.6	72.2	0.41	86.8	7.6	50.9	9.12		9.08	3L
350845	CER/YMH/HYS	6/ ORCW8627	SWW	62.9	70.5	0.39	86.0	7.3	52.2	9.06		8.99	3L
350846	TJB791-1088/SPN	ORCW8628	SWW	59.5	67.4	0.39	82.0	7.8	51.6	8.99		8.97	3L Q-FYELD
350847	TJB842-12919/SPN	5/ ORCW8629	SWW	58.9	71.8	0.37	88.7	7.7	52.2	9.14		9.10	3L
350848	HYS//R37/CHL1	5/ ORCW8630	SWW	59.9	69.6	0.34	88.1	7.6	46.5	9.57		9.53	1L
350849	TJB841/1543//YMH/63-122-66-2	5/ ORCW8631	SWW	61.3	71.3	0.39	87.1	7.5	55.4	8.99		8.93	3L
350850	KVZ/JUACH.F1//KVZ	5/ ORCW8632	SWW	59.8	72.1	0.42	86.3	7.9	51.3	9.32		9.31	2L
350851	ND/P101//BB/GLL	6/ ORCW8634	SWW	59.8	71.2	0.44	84.0	7.3	51.0	9.25		9.17	2L
350852	SRG/SPN	ORCW8635	SWW	60.5	61.8	0.38	75.6	7.5	52.0	9.22		9.17	2L VP-FYELD
350853	TRES	C1017917	CLUB	60.8	72.4	0.36	90.4	7.0	48.9	9.30		9.23	1L
350854	SEL.M772-330/S*DAWS(PW77-45)	85B-848	HRW	60.9	65.8	0.38	81.3	8.5	55.8	8.52		8.56	5L P-FYELD
350855	55-1744/7C//SU/RDL/3/YMH/HYS.0MW800125	85B-889	HRW	61.9	69.4	0.37	85.7	8.2	59.3	8.62		8.64	2M P-MIXO
350856	FARO	C1017590	CLUB	60.0	70.7	0.37	87.3	7.3	51.4	9.34		9.29	2L

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Several of the selections footnoted have very good overall quality, equal to the club check varieties. See "Remarks" for deficiencies of other selections.

Q = Questionable; P = Poor; VP = Very Poor

\*350000 are the second set of the 1986 crop.





NURSCO 84

PENDLETON, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD FASH	MSCOR	FPROT	MABSC	CODI	CODIC	MTYPE	RMKS
					1/		1/	3/		4/		
*350858	STEPHENS	C1017596	SWW	61.1	70.0	0.46	9.1	52.0	9.25		9.26	2M
350859	HILL 81	C1017954	SWW	64.1	73.3	0.43	9.3	52.5	9.09		9.12	2M
350860	MALCOLM	ORCW8113	SWW	61.9	72.1	0.44	8.5	52.5	9.01		8.96	2M
350862	F60213-76, MEXCB78241, M-248	OR8315	HRW	64.4	71.8	0.35	11.8	56.9	8.42		8.65	2M Hard - Short Mixo
350863	RDL/SU92//KALIAN/BB	6/01754022	SWW	62.5	73.3	0.43	9.7	56.8	9.04		9.11	4M
350864	MN1M//KAL/BB	01754989	HRW	65.4	68.1	0.45	9.7	61.0	8.37		8.43	6M P-FYELD
350865	TJB841/1543//YMH/63-122-66-2	6/ORCW8421	SWW	63.3	71.5	0.42	9.7	56.9	8.92		9.00	3M
350866	HYSLOP/CERCO.H-308	OR0843	HRW	63.1	67.4	0.42	9.7	55.6	8.22		8.28	3M P-FYELD
350867	HYSLOP/CERCO.B-307	OR0842	HRW	63.7	68.3	0.40	9.9	55.9	8.25		8.32	3M P-FYELD
350868	DAWS.SM4//MDMM//SM11.W81454-301	6/ORFW301	SWW	60.8	71.4	0.43	9.3	54.1	9.06		9.10	2M
350869	ASPEN/HYS(CB240).85B-404	OR8517	SWW	62.9	72.5	0.49	9.7	54.4	8.71		8.79	2M Low CODI
350870	YMH/HYS/3/1158-57/YMH/2*P101.85B-807	6/OR8518	SWW	63.5	73.5	0.40	9.3	50.3	8.91		8.95	2M
350871	YMH/HYS.OWW68007.85B-979	6/OR8519	SWW	64.2	71.9	0.43	9.3	50.8	9.17		9.21	2M
350872	ND/P101//BB/GLL	ORCW8424	HRW	63.5	69.3	0.41	9.0	62.2	8.22		8.22	4M Q-FYELD; Good Mixing
350873	YMH/HYS/3/55-1744/7C/SU/RDL.84A-292	6/OR0858	SWW	63.6	72.1	0.43	9.2	50.9	9.15		9.17	2M
350874	YMH/HYS/3/58-152/DRC//SPN.84A-342	6/OR0859	SWW	63.2	71.4	0.40	9.7	52.3	8.97		9.05	2M
350875	HYS/NORCO//CAMA/3/SM4(7436)	6/OR8188	SWW	63.5	71.7	0.41	9.4	56.3	8.95		8.99	2M
350876	YMH/HYS/SPNCDN.84A-341	6/OR8510	SWW	63.0	70.4	0.41	9.4	52.7	9.01		9.06	2M
350877	ANZA/MARIS NIMROD.84A-258	6/OR8511	SWW	63.0	69.6	0.37	8.6	52.9	9.27		9.23	3M
350878	SUNDANCE/VH70774.B-118	OR8410	HRW	64.2	68.4	0.37	9.2	58.2	8.40		8.42	6M P-FYELD
350879	68-47/HYS/3/SPN/3/EG/17383//2*HYS.HR-	6/85B-891	SWW	63.4	72.4	0.42	9.7	51.7	8.99		9.06	2M
350880	SWD70493-02W-3P-2H-0P/MARIS NIMROD	6/85B-935	SRW	63.2	69.9	0.40	10.0	54.1	8.95		9.06	3M Q-FYELD
350881	UNKNOWN HR-252	85B-939	SWW	62.5	69.2	0.40	10.1	51.3	8.79		8.91	2M Q-FYELD
350882	65-116//MCD/CAMA.HR-3189	6/85B-978	SRW	62.3	70.3	0.40	9.1	50.0	9.42		9.44	2M
350883	SPRAGUE	C1015376	SWW	61.6	70.7	0.40	9.1	52.4	9.22		9.23	2M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Several of these selections appear equal to the check varieties in soft wheat quality. Most of the hard white selections were low in flour yield, but several appeared to have desirable hard wheat dough mixing properties. No bread baked on the HWW due to low protein.

P = Poor; Q = Questionable

\*350000 are the second set of the 1986 crop.



NURSCO 85

PENDLETON, OR

W.E. KRONSTAD

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
350884*GEN 81										
350885 MPC777062 ORS8416		SPHRE13 SPHRE22	HRS HWS	62.1 60.4	68.6 68.7	0.44 0.45	77.8 77.7	11.8 13.1	63.0 70.8	3H 7H
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
350884 GEN 81										
350885 MPC777062 ORS8416		SPHRE13 SPHRE22	HRS HWS	64.5 73.6	64.7 72.5	3.4 8.8	860 995	872 927		6 P-FYELD, LVOL&BCRGR 2 P-FYELD

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

\*350000 are the second group of the 1986 crop.



NURSCO 86

PENDLETON/MORO, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
350886	STEPHENS --PENDLETON--	C1017596	SWW	60.6	73.3	0.40	86.5	8.8	53.1	2L
350887	HILL 81	C1017954	SWW	60.6	71.3	0.37	83.6	7.9	53.7	2L
350888	MALCOLM	ORCW8113	SWW	61.8	71.1	0.40	82.2	8.4	52.7	5L
350889	DAWS	C1017419	SWW	62.7	71.9	0.39	83.6	7.5	53.9	5L
350890	DUSTY	P1486429	SWW	59.6	72.5	0.39	84.2	7.7	52.1	2L
350891	CREW	C1017951	CLUB	61.4	72.6	0.40	85.1	7.5	50.9	1L
350892	TRES	C1017917	CLUB	62.0	71.0	0.39	82.3	8.1	51.0	1L
350893	67720-10//YMH/HYS	6/ ORCW8519	CLUB	59.4	72.1	0.39	83.2	8.4	53.3	2L
350894	DAWS/SM4//MDM//SM11	6/ ORFW301	SWW	61.5	71.2	0.38	83.0	7.7	55.4	3L
350895	TAST/TORIM	ORCW8417	SWW	63.3	68.3	0.38	77.4	8.1	53.5	3L
350897	TJB841/1543//YMH/63-122-66-2	ORCW8421	SWW	60.7	73.1	0.37	86.8	8.2	54.6	3L
350898	TYEE	C1017773	CLUB	60.7	74.4	0.40	88.4	8.3	52.2	2L
350899	JOHN	WA6819	SWW	61.1	70.9	0.31	86.2	7.6	53.5	3L
350900	HYSLOP/CERCO. H-308	OR843	SWW	59.9	66.1	0.47	72.7	8.6	55.9	4L
350901	HYSLOP/CERCO. B-307	OR842	SWW	61.3	65.6	0.46	71.4	7.8	58.7	4L
350902	HYSLOP/YAYLA//63-112-66-4/3/...	6/ OR845	SWW	62.0	70.5	0.40	81.8	8.0	54.8	3L
350903	F60213-76. MEXB78241. M-248	OR8215	SWW	62.5	69.2	0.36	81.0	9.4	55.0	1M
350904	WA4877/V866336//DAWS	6/ ORCW8516	SWW	60.7	70.4	0.41	81.7	8.4	54.9	4L
350905	SUNDANCE/VH70774. B-518	OR8410	SWW	62.1	67.4	0.42	75.9	7.9	58.3	6L
350906	0705 CLEMENT, WWPNG, M-37	6/ OR8324	SRW	60.0	71.2	0.36	83.0	8.0	53.3	1L
350907	MILDRESS/3/YMH//RIEB/WA4995...	5/ OR8411	SRW	62.5	72.4	0.34	87.3	7.9	53.1	1L
350908	PAHA//SEL. 72-330/DAWS, (M76-429)...	5/ OR855	SWW	61.4	71.5	0.40	82.0	7.5	52.9	2L
350909	ANZA/MARIS NIMROD. A-418	OR856	SWW	61.1	68.1	0.45	75.2	8.0	57.6	6L
350910	HYS/NORCO//CAMA/3/SM4(7436)...	OR8188	SWW	60.6	69.6	0.40	79.0	8.8	52.6	3L
350911	ND/P101//BB/GLL	ORCW8424	SWW	61.3	70.8	0.47	77.2	8.2	58.1	6L
350912	YMH/HYS/3/55-1744/7C//SU/RDL...	OR8514	SWW	62.1	69.9	0.41	78.9	8.9	57.1	2M
350913	MALCOLM --MORO--	ORCW8113	SWW	56.7	63.3	0.41	67.7	11.2	54.9	2M
350914	HILL 81	C1017954	SWW	58.6	66.0	0.42	73.0	11.9	54.0	2M
350915	YMH/HNV11/CD. F1/3/F1(1523)/DRC...	ORCW8422	SWW	57.2	69.2	0.53	69.3	11.1	51.5	2M
350916	AMIGO/STEPHENS, B-643	OR8312	SWW	56.2	62.5	0.48	63.2	11.5	54.7	3M
350917	PAHA//SEL. 72-330/DAWS, (M76-429)...	5/ OR852	SWW	60.1	67.6	0.52	69.9	10.9	54.6	2M
350918	UNKNOWN 101	OR853	SRW	57.4	65.4	0.48	69.1	11.5	56.0	4M
350919	M. BILBO/FIGARO, 84A-367	6/ OR854	SRW	57.7	63.3	0.48	64.2	10.2	53.2	2L
350920	YMH/HYS/3/55-1744/7C//SU/RDL...	6/ OR858	SWW	59.3	64.0	0.49	64.4	10.8	54.8	2M
350921	YMH/HYS//SPNCDN. OWW800027*...	OR8510	SWW	59.3	65.9	0.51	67.0	10.7	55.1	2M

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.





NURSCO 86

PENDLETON/MORO, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC 4/	CAVOL	SCSOR	WTIN	NOSCO	RMKS
350886	STEPHENS --PENDLETON--	C1017596	SWW	8.69	8.67	1305	77.0	359	69	
350887	HILL 81	C1017954	SWW	8.60	8.48	1295	77.0	349	71	
350888	MALCOLM	ORCW8113	SWW	8.41	8.35	1175	66.0	365	74	
350889	DAWS	C1017419	SWW	8.96	8.80	1260	72.0	338	69	
350890	DUSTY	P1486429	SWW	8.64	8.49	1245	71.0	354	71	
350891	CREW	C1017951	CLUB	8.40	8.29	1310	77.0	369	76	
350892	TRES	C1017917	CLUB	8.27	8.21	1165	65.0	342	69	
350893	67720-10//YMH/HYS	ORCW8519	CLUB	8.27	8.23	1245	70.0	345	69	Q-SCSOR
350894	DAWS/SM4//MDM//SM11	ORFW301	SWW	8.40	8.26	1225	69.0	348	71	
350895	TAST/TORIM	ORCW8417	SWW	8.31	8.21	1145	61.0	326	68	P-FYELD
350897	TJB841/1543//YMH/63-122-66-2	ORCW8421	SWW	7.97	7.89	1195	68.0	347	74	P-CODI
350898	TYEE	C1017773	CLUB	8.32	8.28	1245	68.0	343	73	
350899	JOHN	WAG819	SWW	8.76	8.61	1240	72.0	361	72	
350900	HYSLOP/CERCO.H-308	OR843	SWW	7.60	7.56	895	41.0	334	67	VP-FYELD, CODI&SCSOR
350901	HYSLOP/CERCO.B-307	OR842	SWW	7.51	7.38	905	41.0	344	70	VP-FYELD, CODI&SCSOR
350902	HYSLOP/YAYLA//63-112-66-4/3/...	OR845	SWW	8.39	8.28	1200	65.0	354	71	
350903	F60213-76.MEXB78241.M-248	OR8215	SWW	7.52	7.57	1005	52.0	315	68	P-FYELD&CODI
350904	WA4877/V866336//DAWS	ORCW8516	SWW	8.47	8.41	1190	67.0	342	72	
350905	SUNDANCE/VH70774.B-518	OR8410	SWW	7.70	7.58	1025	50.0	327	67	P-FYELD&CODI
350906	0705 CLEMENT, WWPNG, M-37	OR8324	SRW	8.81	8.70	1185	66.0	332	67	Q-SCSOR
350907	MILDRESS/3/YMH//RIEB/WA4995...	OR8411	SRW	8.66	8.54	1315	78.0	346	71	"RED"
350908	PAHA//SEL.72-330/DAWS,(M76-429)...	OR855	SWW	8.46	8.30	1245	74.0	337	75	P-FYELD, CODI&SCSOR
350909	ANZA/MARIS NIMROD.A-418	OR856	SWW	7.66	7.55	965	48.0	324	71	P-FYELD&SCSOR
350910	HYS/NORCO//CAMA/3/SM4(7436)...	OR8188	SWW	8.22	8.20	1140	59.0	327	68	P-CODI&SCSOR
350911	ND/P101//BB/GLL	ORCW8424	SWW	7.71	7.62	990	50.0	314	71	Q-FYELD
350912	YMH/HYS/3/55-1744/7C//SU/RDL...	OR8514	SWW	8.24	8.23	1250	72.0	335	70	
350913	MALCOLM --MORO--	ORCW8113	SWW	8.45	8.69	1260	73.0	347	69	
350914	HILL 81	C1017954	SWW	8.39	8.71	1250	69.0	366	71	
350915	YMH/HNV11/CD.F1/3/F1(1523)/DRG...	ORCW8422	SWW	8.37	8.61	1195	66.0	353	67	P-SCSOR&NOSCO
350916	AMIGO/STEPHENS, B-643	OR8312	SWW	8.57	8.85	1210	67.0	338	67	Q-FYELD
350917	PAHA//SEL.72-330/DAWS,(M76-429)...	OR852	SWW	8.57	8.78	1255	75.0	355	70	
350918	UNKNOWN 101	OR853	SRW	8.02	8.30	1150	63.0	346	67	P-SCSOR
350919	M.B1LBO/FICARO, 84A-367	OR854	SRW	8.69	8.82	1255	75.0	357	69	Q-FYELD - "RED"
350920	YMH/HYS/3/55-1744/7C//SU/RDL...	OR858	SWW	8.52	8.72	1215	72.0	346	71	Q-FYELD
350921	YMH/HYS//SPNCDN.OWW800027*...	OR8510	SWW	8.45	8.64	1165	62.0	346	69	P-SCSOR





NURSCO 86

PENDLETON/MORO, OR

C.R. ROHDE

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
350922	ANZA/MARIS NIMROD.84A-258	5/ OR8511	SWW	57.8	66.5	0.43	72.0	10.2	54.9	3M
350923	ANZA/MARIS NIMROD.85B-791	5/ OR8515	SRW	58.5	69.5	0.47	75.9	10.2	51.9	3L
350924	MILDRESS/3/YMH//RIEB/NC0.85B-1270	5/ OR8516	SRW	57.6	66.3	0.47	70.2	11.1	50.7	2M
LABNUM	VARIETY	IDNO	CLASS	CODI	CODIC	CAVOL	SCSOR	WTIN	NOSCO	RMKS
					<u>3/</u>					
350922	ANZA/MARIS NIMROD.84A-258	OR8511	SWW	8.74	8.87	1310	79.0	352	69	
350923	ANZA/MARIS NIMROD.85B-791	OR8515	SRW	9.07	9.21	1350	76.0	356	69	
350924	MILDRESS/3/YMH//RIEB/NC0.85B-1270	OR8516	SRW	8.44	8.67	1245	70.0	350	67	

COMMENTS: The milling properties of the Moro locations were abnormally low, as were the cookie spreads at both locations. Experimental selections were judged according to the performance of the standard varieties. Note the soft red wheats. See "Remarks" for deficiencies.

VP = Very Poor; P = Poor; Q = Questionable



NURSCO 87

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
* 350925	BOUNTY 203 (Breeder Nursery Stock)	1	HRW	61.6	68.3	0.38	83.9	9.4	62.4	6M	62.8
350926	HAWK	2	HRW	61.2	70.8	0.39	85.7	9.5	62.9	7M	63.1
350927	NEWTON	3	HRW	61.4	69.5	0.38	85.1	9.5	62.9	6M	62.9
350928	PROBRAND 830	4	HRW	62.7	70.8	0.33	88.9	10.0	63.5	8M	64.9
350929	TAM 105	5	HRW	60.4	69.3	0.35	86.4	9.6	61.7	6M	62.8
350930	BENNETT	6	HRW	62.4	73.1	0.37	89.5	11.2	62.3	7M	64.0
350931	COLT	7	HRW	64.0	72.3	0.33	90.6	8.7	60.3	7M	58.7
350932	LANCER	8	HRW	60.8	73.0	0.38	89.0	11.5	65.7	4H	66.6
350933	LINDON	9	HRW	63.6	70.7	0.31	90.1	8.3	62.3	6L	61.1
350934	TAM 105	10	HRW	60.4	68.6	0.36	85.4	9.1	63.2	6L	63.3
350935	LEN	11	HRS	61.0	72.9	0.37	89.4	12.5	66.7	6H	69.1
350936	MARSHALL	12	HRS	62.8	73.6	0.39	88.8	11.3	62.4	4H	64.2
350937	OSLO	13	HRS	59.2	70.4	0.36	87.0	12.4	65.1	6H	65.7
350938	STOA	14	HRS	62.8	71.9	0.38	87.7	12.4	66.2	6H	69.0
350939	YECORA ROJO	15	HRS	66.0	72.3	0.38	88.2	11.2	65.2	6H	68.1
350940	(FGIS Commercial Samples)	101	HRW	62.8	71.4	0.36	88.1	11.1	63.2	4H	67.3
350941		102	HRW	63.2	70.4	0.37	86.6	10.8	62.6	4H	65.4
350942		109	HRW	61.6	70.5	0.40	85.1	11.2	65.2	5H	64.4
350943		110	HRS	62.4	70.9	0.40	85.3	12.6	64.7	4H	66.0
350944		111	HRS	63.2	71.0	0.42	84.8	12.3	64.4	4H	68.4
350945		112	HRS	62.4	71.1	0.41	85.4	12.7	63.6	5H	68.3
350946		114	HRW	62.4	69.5	0.36	86.3	10.6	64.3	8M	65.3
350947		120	HRW	62.4	69.9	0.39	85.2	9.9	62.8	8M	63.4
350948		121	HRW	62.8	69.8	0.38	85.4	10.0	63.7	8M	64.2
350949		132	HRS	61.4	71.8	0.39	86.9	12.1	64.4	6H	67.9
350950		133	HRS	62.4	72.4	0.40	87.0	13.9	65.0	5H	67.1

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 11% Protein.

4/ Observed Values Corrected to 11% protein.

\*350000 are the second set of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



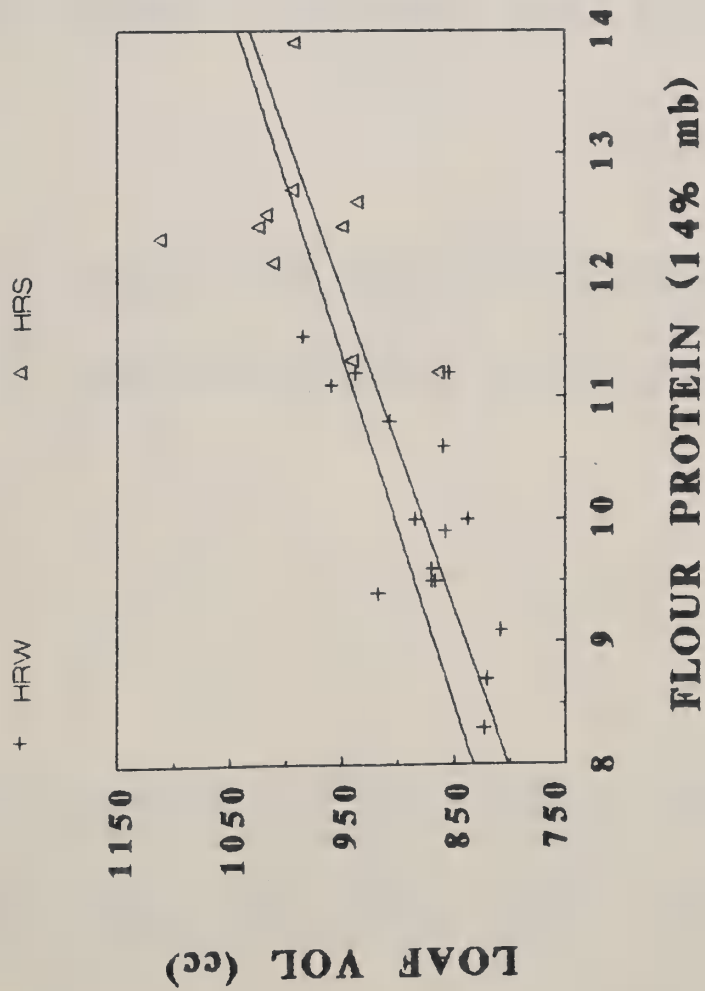
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LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	LVOL	LVOLC 4/	BCRGR	CODI	CODIC 4/	RMKS
350925	BOUNTY 203	1	HRW	64.4	3.3	918	1017	3	8.90	8.77	
350926	HAWK	2	HRW	64.6	4.0	867	960	3	9.07	8.95	
350927	NEWTON	3	HRW	64.4	3.5	870	963	3	9.02	8.90	
350928	PROBRAND 830	4	HRW	65.9	5.4	885	947	2	8.89	8.81	
350929	TAM 105	5	HRW	64.2	3.5	870	957	5	8.61	8.50	
350930	BENNETT	6	HRW	63.8	3.7	938	926	2	9.11	9.13	
350931	COLT	7	HRW	61.0	3.1	821	964	3	9.20	9.02	
350932	LANCER	8	HRW	66.1	3.2	985	954	2	8.65	8.69	
350933	LONDON	9	HRW	63.8	4.7	823	990	5	9.15	8.93	
350934	TAM 105	10	HRW	65.2	4.5	808	926	5	8.86	8.71	
350935	LEN	11	HRS	67.6	6.1	1018	925	2	8.70	8.82	
350936	MARSHALL	12	HRS	63.9	4.1	942	923	2	8.85	8.87	
350937	OSLO	13	HRS	64.3	6.7	1025	938	2	8.77	8.89	
350938	STOA	14	HRS	67.6	6.1	950	863	2	8.55	8.66	
350939	YECORA ROJO	15	HRS	67.9	4.6	865	853	3	8.45	8.47	
350940		101	HRW	67.2	4.8	960	954	3	8.80	8.81	
350941		102	HRW	65.6	3.6	908	920	3	8.80	8.78	
350942		109	HRW	64.2	3.3	855	843	5	8.91	8.93	
350943		110	HRS	64.4	4.5	937	838	3	8.50	8.63	
350944		111	HRS	67.1	4.1	1113	1032	2	8.60	8.70	
350945		112	HRS	66.6	4.0	995	890	3	8.46	8.60	
350946		114	HRW	65.7	4.0	860	885	5	8.69	8.66	
350947		120	HRW	64.5	4.1	858	926	5	8.81	8.72	
350948		121	HRW	65.2	3.9	838	900	5	8.65	8.57	
350949		132	HRS	66.8	3.5	1012	944	3	8.77	8.86	
350950		133	HRS	64.2	3.8	993	813	3	8.50	8.73	

COMMENTS: These hard red wheats were selected from a set of 71 samples representing all classes of U.S. wheat used in an ARS Committee study on methods to determine kernel hardness. Results indicate, as most other work, that bread baking performance of HRS and HRW wheats do not differ when protein is considered (See scatter plot, page 3). Statistically, the HRW wheats provided a better fit ( $r = .73$ ) than the HRS wheats ( $r = .40$ )







Statistics	Graph A	Graph B	Graph C	Graph D
Size	16	10	0	0
Total	14064	9850	0	0
Mean	879	985	0	0
Maximum	985	1113	0	0
Minimum	808	865	0	0
Standard Deviation	50.7162	66.453	0	0
Standard Error	12.6791	21.0143	0	0
95% Confidence	24.8509	41.188	0	0
99% Confidence	32.712	54.2168	0	0
a0	493.1651	551.9879	0	0
a1	38.4873	35.0901	0	0
a2	0	0	0	0
a3	0	0	0	0
a4	0	0	0	0
a5	0	0	0	0
a6	0	0	0	0
Rval	0.7266	0.3977	0	0



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LABNUM	VARIETY	FN Sec.	DSI O.D.	CLASS	TWT lb/bu	FYELD %	FASH %	MSCOR	FPROT %	1/ MABSC	MTYPE	CODI cm
350951 2742		430	.082	SWW	61.9	72.5	0.44	81.9	8.0	55.4	3L	8.91
350952 3275		380	.130	SWW	61.6	71.3	0.43	80.1	7.8	54.4	3L	8.77
350953 3276		408	.062	SWW	62.2	72.1	0.43	82.6	7.9	55.9	3L	8.90
350954 3277		319	.063	SWW	62.3	71.8	0.44	81.1	8.3	53.9	3L	8.85
350955 3278		406	.095	SWW	62.0	72.7	0.44	82.0	8.5	55.1	3L	8.70
350956 3284		342	.197	SWW	62.7	73.5	0.43	84.1	8.3	53.5	3L	8.89
350957 3285		338	.186	SWW	62.0	71.6	0.43	80.2	8.6	55.6	3L	8.80
350958 3286		380	.093	SWW	61.5	71.3	0.44	79.4	8.6	54.0	3L	8.71
350959 3296		463	.063	SWW	61.6	73.0	0.44	83.4	9.3	56.1	3L	8.30
350960 3298		530	.073	SWW	61.8	72.8	0.44	82.4	8.0	54.8	3L	8.49
350961 6376		399	.066	SWW	62.5	72.7	0.45	79.9	8.6	56.4	3L	8.30
350962 6375		430	.068	SWW	61.8	71.1	0.44	78.6	7.8	55.6	3L	8.46
350963 6452		411	.058	SWW	62.2	72.6	0.42	82.9	8.4	56.2	3L	8.51
350964 6461		370	.061	SWW	62.3	73.2	0.32	89.3	8.4	53.8	3L	8.77
350965 6462		415	.060	SWW	61.6	72.7	0.45	81.4	9.0	55.3	3M	8.59
350966 6463		408	.068	SWW	61.7	72.2	0.46	80.0	8.4	54.3	3L	8.79
350967 6820		423	.067	SWW	62.0	72.2	0.45	80.7	8.0	55.4	3L	8.77
350968 7505		461	.058	SWW	62.1	70.5	0.43	79.3	8.7	55.2	3L	8.51
350969 7511		430	.064	SWW	62.4	72.4	0.43	83.0	8.8	55.4	3M	8.60
350970 7512		418	.068	SWW	62.7	72.4	0.45	81.5	8.4	54.7	3L	8.65
350971 7514		455	.061	SWW	62.3	73.2	0.43	81.9	9.2	55.4	2L	8.71
350972 7515		390	.083	SWW	62.7	71.6	0.42	80.7	8.5	55.5	3L	8.72
350973 8170		427	.068	SWW	62.2	72.6	0.42	82.2	8.2	56.7	3L	8.85
350974 8171		457	.069	SWW	62.3	72.3	0.43	82.8	8.2	54.7	3L	8.79
350975 8174		388	.088	SWW	62.5	72.5	0.42	82.7	7.9	55.8	3L	8.77
350976 8176		427	.068	SWW	62.1	73.2	0.43	83.9	8.5	54.2	3L	8.55
350977 1203		357	.104	SWW	62.5	73.4	0.43	84.2	8.0	56.3	3L	8.75
350978 1204		382	.106	SWW	62.7	73.2	0.44	82.8	8.6	55.1	3L	8.60
350979 1205		409	.085	SWW	62.1	72.7	0.45	81.7	8.0	56.3	3L	8.62
350980 2739		389	.070	SWW	62.6	71.8	0.43	82.5	7.4	54.0	5L	8.81
350981 3283			.078	SWW	62.9	71.3	0.40	83.2	7.9	56.3	3L	8.72
350982 3287		422	.073	SWW	62.4	70.9	0.38	83.5	8.5	55.6	3L	8.87
350983 3288		401	.074	SWW	61.9	70.8	0.38	82.1	8.3	57.0	3L	8.92
350984 3290		450	.064	SWW	62.7	70.4	0.39	81.9	7.5	54.8	5L	8.82
350985 3299		414	.076	SWW	61.6	71.6	0.40	82.7	8.0	54.8	3L	8.90



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LABNUM	VARIETY	CLASS	CODIC 4/	CAVOL cc	SCSOR	WTIN g	NOSCO	FABS	FSTAB Min.	RMKS
350951	2742	SWW	8.91	1215	70.0	348	73	54.9	4.6	
350952	3275	SWW	8.75	1220	71.0	335	71	54.9	3.6	
350953	3276	SWW	8.89	1235	71.0	341	70	54.0	5.0	
350954	3277	SWW	8.88	1250	72.0	339	70	53.3	5.5	
350955	3278	SWW	8.75	1195	68.0	337	69	53.8	5.0	
350956	3284	SWW	8.92	1305	76.0	347	72	53.5	3.2	
350957	3285	SWW	8.87	1270	72.0	343	71	55.2	3.9	
350958	3286	SWW	8.78	1270	73.0	344	70	54.6	4.7	
350959	3296	SWW	8.44	1190	67.0	355	70	55.6	6.4	
350960	3298	SWW	8.49	1195	67.0	350	71	55.4	4.0	
350961	6376	SWW	8.37	1205	70.0	345	70	55.3	5.0	
350962	6375	SWW	8.44	1235	69.0	343	71	56.3	2.9	
350963	6452	SWW	8.56	1175	64.0	340	70	55.7	3.9	
350964	6461	SWW	8.82	1200	70.0	336	69	55.6	3.4	
350965	6462	SWW	8.70	1215	71.0	335	71	55.1	4.6	
350966	6463	SWW	8.83	1230	72.0	363	72	54.9	4.1	
350967	6820	SWW	8.77	1240	70.0	350	71	52.8	4.8	
350968	7505	SWW	8.59	1225	70.0	361	73	55.2	5.2	
350969	7511	SWW	8.69	1200	67.0	362	72	55.4	5.4	
350970	7512	SWW	8.69	1185	69.0	357	71	55.3	4.0	
350971	7514	SWW	8.84	1205	68.0	341	70	54.0	5.4	
350972	7515	SWW	8.78	1205	70.0	329	71	55.0	5.6	
350973	8170	SWW	8.87	1250	69.0	347	72	55.0	3.8	
350974	8171	SWW	8.81	1215	68.0	345	72	54.4	4.0	
350975	8174	SWW	8.76	1180	70.0	338	70	55.2	3.1	
350976	8176	SWW	8.60	1220	69.0	352	72	55.5	4.3	
350977	1203	SWW	8.75	1195	70.0	341	72	55.2	3.8	
350978	1204	SWW	8.67	1165	69.0	344	72	55.5	5.1	
350979	1205	SWW	8.62	1160	68.0	347	72	55.0	5.0	
350980	2739	SWW	8.75	1185	68.0	342	75	54.6	3.8	
350981	3283	SWW	8.71	1245	74.0	344	73	53.8	4.0	
350982	3287	SWW	8.93	1215	70.0	345	71	53.7	4.7	
350983	3288	SWW	8.96	1210	68.0	351	72	54.6	4.0	
350984	3290	SWW	8.77	1225	70.0	347	75	53.3	4.9	
350985	3299	SWW	8.90	1205	71.0	341	72	53.2	3.1	



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LABNUM	VARIETY	FN Sec.	DSI O.D.	CLASS	TWT lb/bu	FYELD %	FASH1/ %	MSCOR	FPROT1/ %	MABSC3/ %	MTYPE	CODI cm
350986 6451		346	.115	SWW	61.8	71.6	0.41	83.3	8.2	57.2	3L	8.86
350987 6499		430	.077	SWW	61.9	70.9	0.40	81.8	8.9	55.0	3L	8.77
350988 6500		413	.085	SWW	61.6	72.0	0.40	84.0	8.4	55.7	3L	8.70
350989 6552		392	.072	SWW	62.2	72.3	0.39	84.0	8.1	54.3	3L	8.80
350990 6633		369	.114	SWW	62.0	71.3	0.40	81.7	8.7	56.6	3M	8.75
350991 7502		433	.069	SWW	62.2	70.0	0.39	80.1	8.1	55.5	3L	8.81
350992 7503		383	.102	SWW	62.4	72.4	0.40	84.2	7.7	56.4	3L	8.70
350993 7504		409	.080	SWW	61.8	72.3	0.41	83.5	8.6	55.1	3L	8.86
350994 7509		363	.104	SWW	62.3	70.5	0.39	80.1	7.8	57.3	3L	8.84
350995 7510		413	.070	SWW	62.2	71.3	0.39	81.6	8.1	55.0	3L	8.77
350996 7513		426	.082	SWW	62.0	70.8	0.39	80.2	7.9	56.3	3L	8.77
350997 7520		458	.074	SWW	63.0	71.9	0.41	82.1	7.7	54.6	3L	8.74
350998 8167		448	.083	SWW	61.9	71.5	0.41	80.1	8.1	56.0	3L	8.74
350999 8168		443	.070	SWW	62.0	70.5	0.42	79.4	7.8	54.6	3L	8.64
351000 8169		451	.086	SWW	61.9	72.3	0.40	82.6	7.9	54.9	3L	8.70
351001 8175		431	.075	SWW	62.3	72.6	0.42	82.2	8.1	53.2	3L	8.87
351002 8177		448	.073	SWW	62.3	70.0	0.41	79.8	8.5	55.1	3L	9.04
351003 6360		538	.074	SWW	62.0	71.8	0.43	80.5	8.2	54.2	3L	8.85
351004 6361		417	.085	SWW	61.6	70.7	0.43	79.8	8.7	56.6	3M	8.79





NURSCO 88

LABNUM	VARIETY	CLASS	CODIC 4/	CAVOL	SCSOR	WTIN	NOSCO	FABS	FSTAB	RMKS
				CC		%			Min.	
350986 6451		SWW	8.88	1265	73.0	349	74	54.6		5.1
350987 6499		SWW	8.87	1225	72.0	344	72	55.4		4.6
350988 6500		SWW	8.74	1250	71.0	346	72	53.3		4.3
350989 6552		SWW	8.81	1240	71.0	335	71	53.6		3.3
350990 6633		SWW	8.83	1235	71.0	347	71	54.8		4.5
350991 7502		SWW	8.82	1280	74.0	355	71	52.9		5.0
350992 7503		SWW	8.67	1225	70.0	353	73	53.3		5.4
350993 7504		SWW	8.93	1240	72.0	356	71	53.9		4.2
350994 7509		SWW	8.82	1255	74.0	353	71	53.7		5.3
350995 7510		SWW	8.79	1245	71.0	348	71	52.6		4.6
350996 7513		SWW	8.76	1275	75.0	352	72	53.1		4.6
350997 7520		SWW	8.70	1240	69.0	347	72	52.9		4.6
350998 8167		SWW	8.75	1235	70.0	348	71	54.1		4.5
350999 8168		SWW	8.62	1235	71.0	340	70	53.9		3.5
351000 8169		SWW	8.69	1205	69.0	343	71	53.5		3.1
351001 8175		SWW	8.89	1255	71.0	353	71	52.3		5.0
351002 8177		SWW	9.09	1320	78.0	350	70	52.7		4.9
351003 6360		SWW	8.87	1275	75.0	354	70	53.4		3.7
351004 6361		SWW	8.86	1300	75.0	359	70	53.5		6.9

1/ Observed Values Corrected to 14% Moisture Basis

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

Variable	N	Minimum	Maximum	Mean	Std. Dev.
TWT	54	61.50	63.00	62.14	0.37
FYELD	54	70.00	73.50	71.90	0.91
FASH	54	0.32	0.46	0.42	0.02
MSCOR	54	78.60	89.30	81.92	1.80
FPROT	54	7.40	9.30	8.26	0.41
MABSC	54	53.20	57.30	55.32	0.96
CODI	54	8.30	9.04	8.73	0.15
CODIC	54	8.37	9.09	8.76	0.14
CAVOL	54	1160.0	1320.00	1228.43	34.58
SCSOR	54	64.00	78.00	70.61	2.55
WTIN	54	329.00	363.00	346.61	7.35
NOSCO	54	69.00	75.00	71.33	1.27
DSI	54	0.06	0.20	0.08	0.03
FN	53	319.00	538.00	413.96	41.31

COMMENTS: These sample analyses were conducted in cooperation with U.S. Wheat Associates, Inc. as the fourth set of seasonal western white cargo sampling project.

Primary objective is to determine the degree of uniformity of wheat shipments throughout the marketing year.



NURSCO 89

PULLMAN, WA

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABS	MABSC
						<u>1/</u>		<u>1/</u>		<u>3/</u>
*351005	DAWS	C1017419	SWW	64.6	77.2	0.40		7.8	54.6	56.8
351006		WA7166	SWW	63.0	78.5	0.38		7.6	56.2	58.6
351007	PENEWAWA	WA6920	SWS	61.2	75.8	0.46		9.5	56.1	56.6
351008	TREASURE	PI468962	SWS	61.2	75.5	0.44		9.5	56.5	57.0
351009		WA7183	SWS	62.4	76.2	0.45		9.4	54.5	55.1
351010	WADU	WA7187	SWS	62.4	76.4	0.40		11.2	59.0	57.8
351011		WA7188	SWS	62.5	76.0	0.43		10.7	57.8	57.1
351012		WA7492	SWS	61.0	74.1	0.46		10.5	56.7	56.2
351013	WAMPUM	C1017691	HRS	62.1	76.3	0.46		11.1	62.0	60.9
351014	COPPER	PI502644	HRS	62.2	74.1	0.40		11.8	64.7	62.9

LABNUM	VARIETY	IDNO	CLASS	MTYPE	VISC	VISCC	CODI	CODIC	CAVOL	SCSOR
								<u>4/</u>		
351005	DAWS	C1017419	SWW	4L	92	163	8.40	8.16	1170	70.0
351006		WA7166	SWW	6L	82	155	8.74	8.48	1220	73.0
351007	PENEWAWA	WA6920	SWS	4M	105	117	8.68	8.63	1100	59.0
351008	TREASURE	PI468962	SWS	3M	81	90	9.13	9.08	1100	60.0
351009		WA7183	SWS	3M	72	81	8.92	8.85	1130	61.0
351010	WADU	WA7187	SWS	4M	168	136	8.77	8.90	1140	62.0
351011		WA7188	SWS	4M	129	113	8.70	8.78	1150	63.0
351012		WA7492	SWS	2M	103	94	8.59	8.64	1175	65.0
351013	WAMPUM	C1017691	HRS	3H	160	132	8.37	8.46	1115	57.0
351014	COPPER	PI502644	HRS	3H	224	165	8.13	8.28	1045	54.0

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 89

PULLMAN, WA

LABNUM	VARIETY	IDNO	CLASS	WTIN	NOSCO	FABS	FPEAK	FSTAB	BABS
351005	DAWS	C1017419	SWW	353	74	57.1	2.3	5.4	
351006		WA7166	SWW	341	75	55.9	1.4	5.6	
351007	PENEWAWA	WA6920	SWS	357	74	55.4	5.8	9.2	57.8
351008	TREASURE	PI468962	SWS	360	70	55.2	4.0	5.0	55.7
351009		WA7183	SWS	361	72	55.1	3.4	3.3	55.2
351010	WADU	WA7187	SWS	340	68	57.5	5.3	7.5	60.7
351011		WA7188	SWS	339	70	58.8	5.0	6.3	59.5
351012		WA7492	SWS	354	73	60.5	2.7	3.2	57.4
351013	WAMPUM	C1017691	HRS	334	66	62.4	7.5	9.6	63.7
351014	COPPER	PI502644	HRS	339	65	67.3	7.9	12.1	66.4

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
351005	DAWS	C1017419	SWW	<u>3/</u>					
351006		WA7166	SWW						
351007	PENEWAWA	WA6920	SWS		4.2	825	855	7	
351008	TREASURE	PI468962	SWS		2.1	800	830	8	
351009		WA7183	SWS		2.3	790	826	8	
351010	WADU	WA7187	SWS		3.4	925	853	3	
351011		WA7188	SWS		2.9	895	853	4	
351012		WA7492	SWS		1.5	805	775	7	
351013	WAMPUM	C1017691	HRS		3.5	980	912	3	
351014	COPPER	PI502644	HRS		3.5	925	813	2	

COMMENTS: These advanced selections were milled in the Miag Multomat pilot-mill and sub-sample sets distributed to the PNW Collaborative Test cooperators. Samples were increased by the Agronomy & Soils Dept., WSU in cooperation with the Pacific Northwest Grains Council. Data collected from the cooperators will be summarized in a separate report. See pages 3-6 for cumulative ash and flour yields comparing the check varieties and experimental selections. All were equal or better than the checks in milling quality.

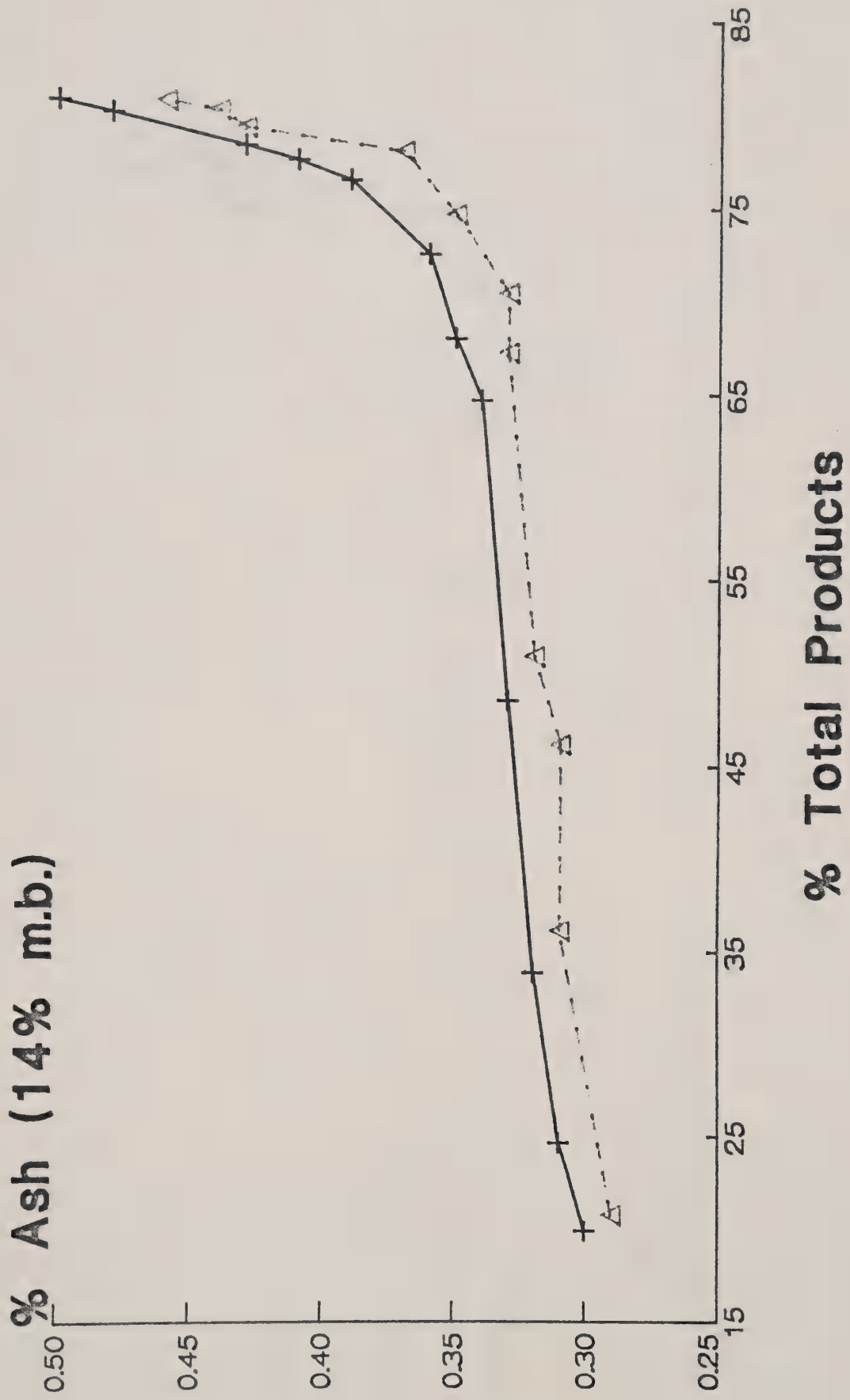




# CUMULATIVE ASH

—+— DAWS

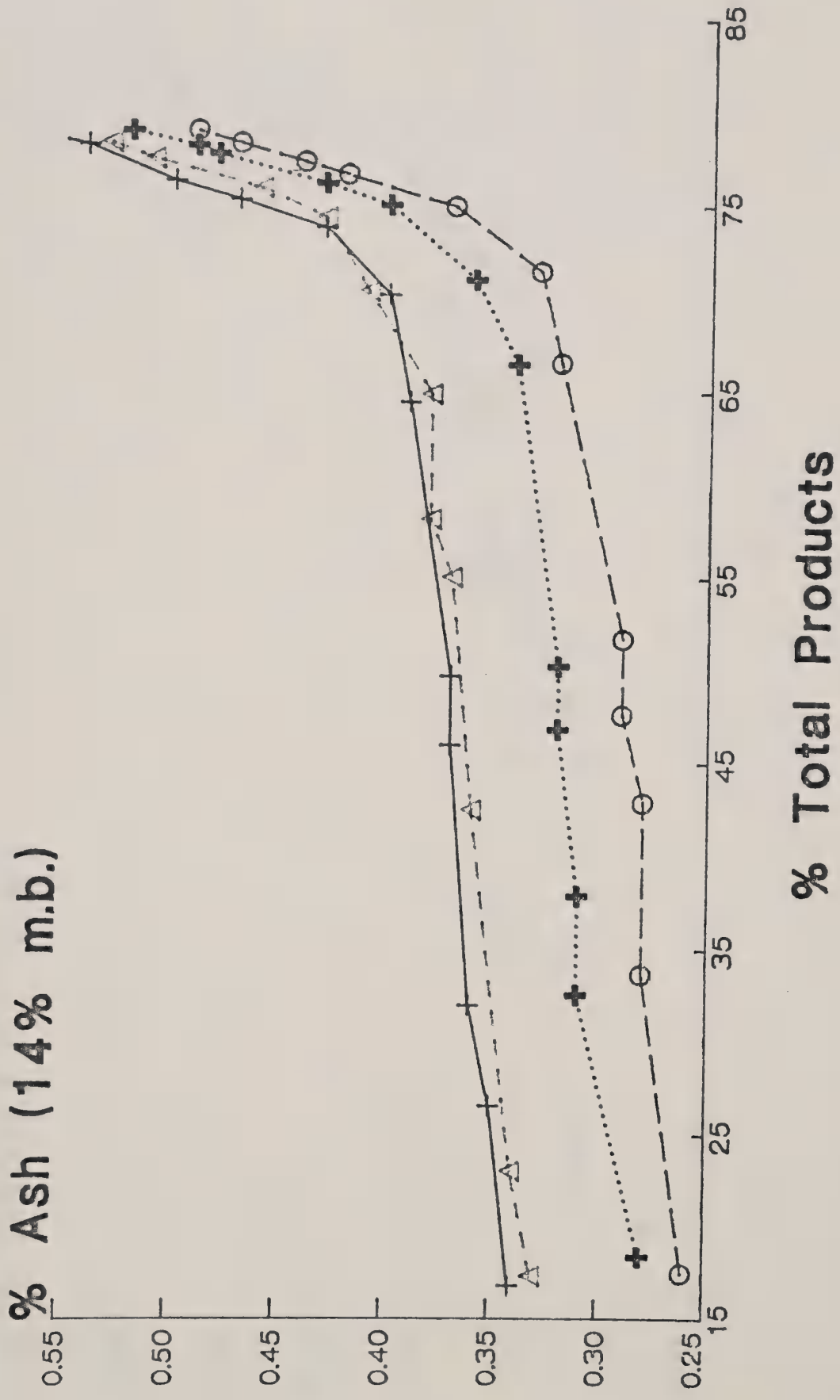
—Δ— WA7166





# DUAL PURPOSE CUMULATIVE ASH

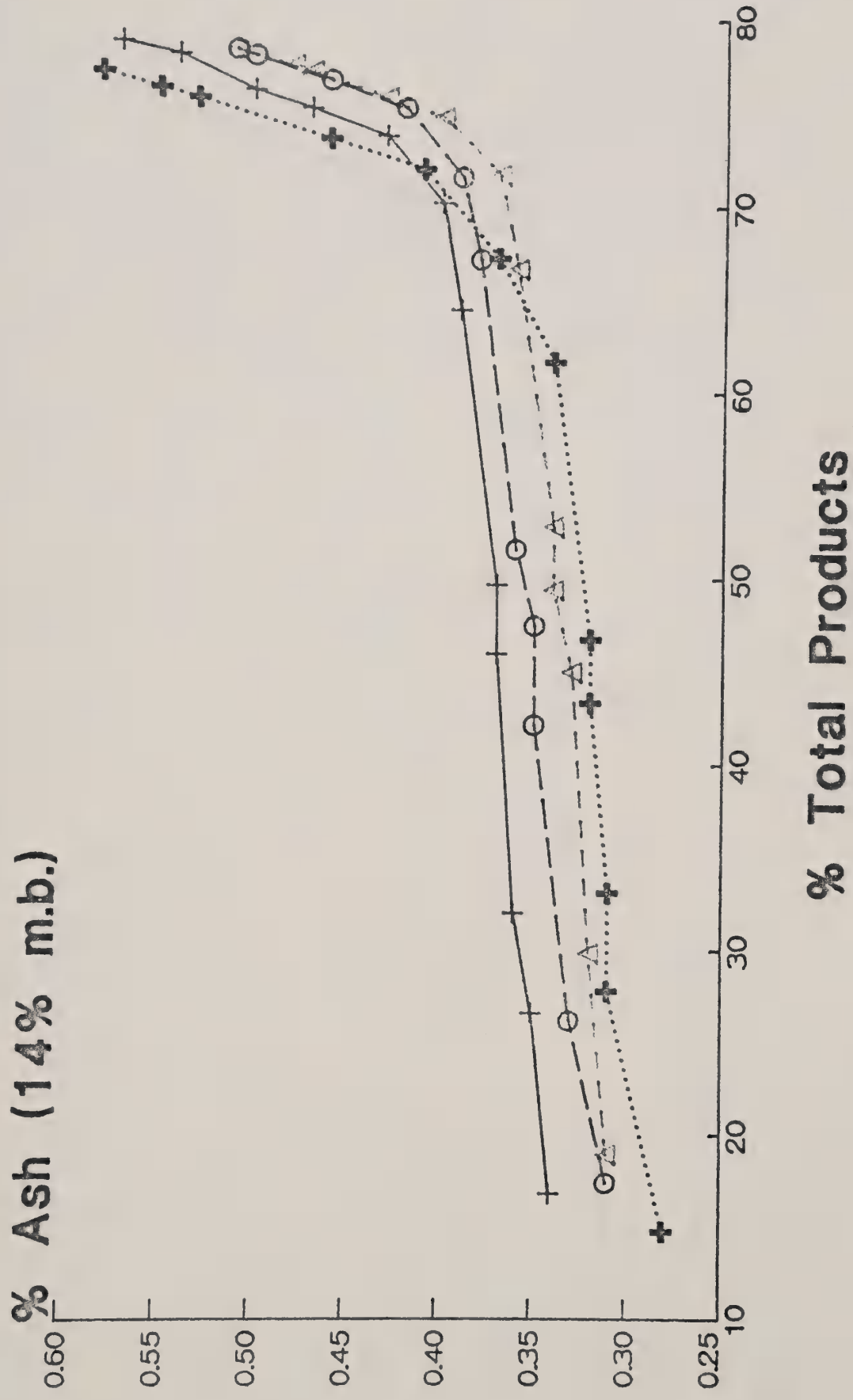
+— Pene-  
 wawa      -Δ- Wampum -○- WA7187 +...+ WA7188





# SWS CUMULATIVE ASH

—+— Pene-    -Δ- Treas-    -○- WA7183...+... WA7492  
 wawa            ure

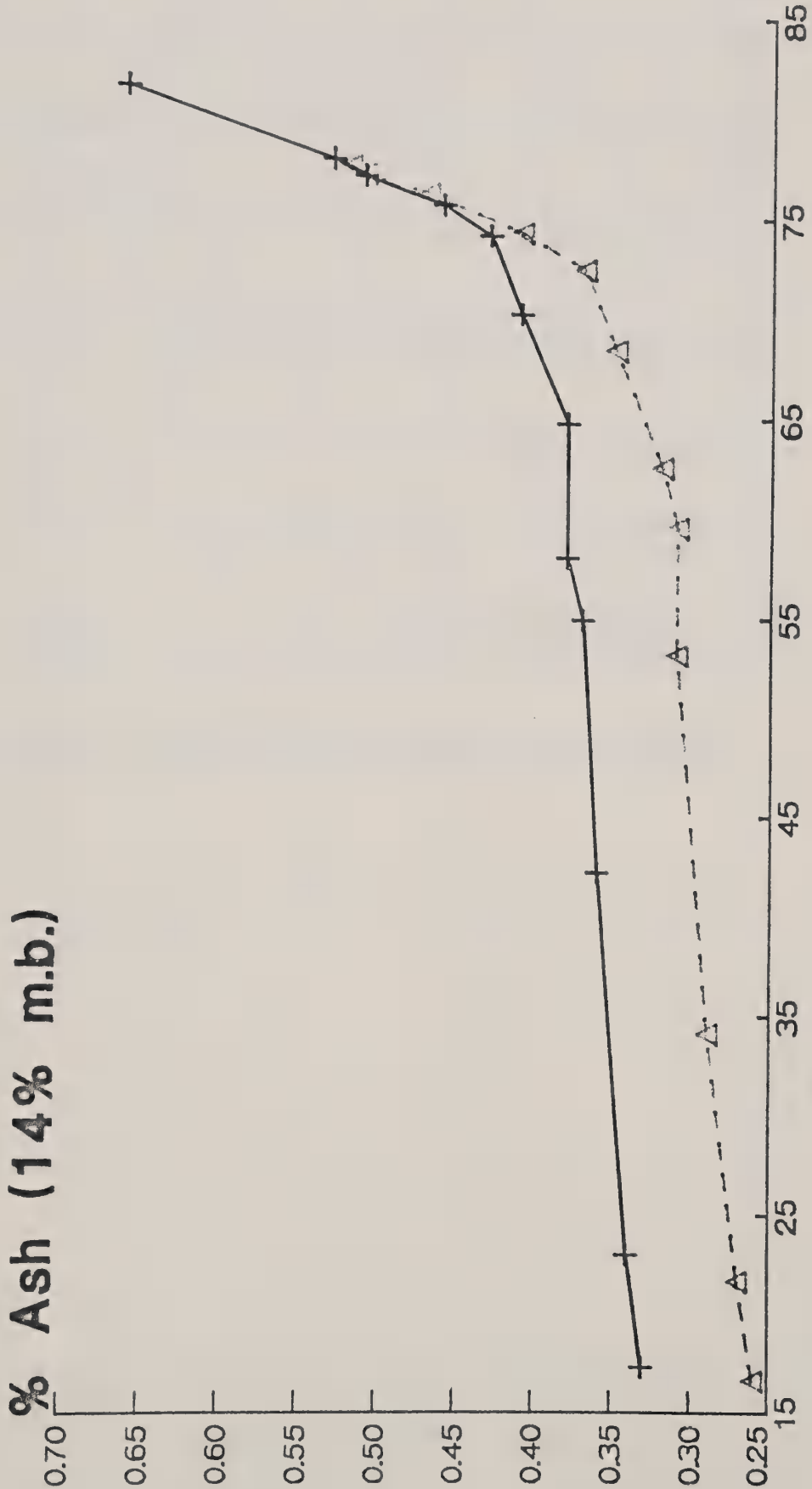




# HRS CUMULATIVE ASH

—+— Wampum

--Δ-- Copper



% Total Products





NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/ 1/		1/ 1/	3/ 3/		
351015*	HATTON I	C1017772	HRW	64.6	73.1	0.39	88.4	11.9	64.9	2H	65.5
351016	N8600301	2	HRW	64.4	72.4	0.39	87.9	11.8	64.1	2H	64.1
351017	N8600401	6/3	HRW	63.2	73.2	0.36	90.0	12.3	65.0	5H	65.0
351018	N8600902	6/14	HRW	62.4	70.7	0.36	87.3	11.4	65.4	3H	64.5
351019	N8601102	28	HRW	63.6	71.6	0.33	89.7	11.6	65.4	1H	64.7
351020	N86011402	31	HRW	63.4	70.1	0.34	87.7	11.4	64.7	2H	62.8
351021	N8601601	34	HRW	62.6	67.2	0.38	82.8	11.2	66.7	6H	67.6
351022	N8601701	6/41	HRW	64.2	70.9	0.39	85.9	11.7	66.0	3H	65.4
351023	N8601702	6/42	HRW	64.0	70.7	0.32	89.3	11.7	66.0	3H	64.4
351024	N8601802	5/47	HRW	62.4	73.4	0.37	89.9	11.5	64.9	5H	64.1
351025	N8601902	6/49	HRW	62.6	71.9	0.37	88.1	12.7	65.3	2H	65.7
351026	HATTON II	C1017772	HRW	64.8	71.5	0.38	87.2	12.1	64.4	3H	64.2
351027	N8602102	6/62	HRW	62.4	73.6	0.40	88.3	12.6	64.1	7H	64.4
351028	N8602602	6/78	HRW	62.4	72.4	0.39	87.5	12.1	65.0	2H	63.8
351029	N8602603	77	HRW	62.6	71.9	0.38	87.4	10.8	63.2	4M	60.7
351030	N8602801	81	HRW	63.4	70.7	0.33	89.1	11.5	63.5	2H	62.7
351031	N8603103	85	HRW	62.8	71.4	0.40	86.0	12.1	63.9	1H	62.7
351032	HATTON III	C1017772	HRW	65.2	72.4	0.39	87.5	12.4	63.8	3H	64.9
351033	N8603503	110	HRW	63.2	73.0	0.34	90.8	13.0	62.5	1H	63.2
351034	N8603504	111	HRW	62.6	70.1	0.38	85.7	11.5	63.3	3M	62.5
351035	N8603505	112	HRW	63.2	70.3	0.36	86.8	12.7	62.3	2H	62.7
351036	N8603605	117	HRW	63.2	73.2	0.38	89.2	12.7	63.8	2H	65.2
351037	N8604102	6/129	HRW	63.0	70.4	0.34	88.3	12.5	65.3	3H	66.5
351038	N8604601	148	HRW	62.4	68.5	0.38	84.2	12.1	62.8	2H	62.6
351039	HATTON IV	C1017772	HRW	65.0	72.0	0.38	87.6	12.6	64.9	3H	66.2
351040	N8604702	158	HRW	62.6	69.6	0.37	85.7	11.6	65.9	5H	66.2
351041	N8604701	6/159	HRW	63.2	69.7	0.35	87.0	11.9	65.0	5H	66.6
351042	N8604903	161	HRW	63.6	70.6	0.39	85.6	12.4	64.5	3H	65.6
351043	N8604901	163	HRW	62.4	70.0	0.38	85.5	12.4	64.6	5H	65.7
351044	N8605306	6/173	HRW	64.0	73.3	0.40	88.1	11.5	64.5	4H	63.7
351045	N8605301	5/174	HRW	63.8	73.3	0.40	88.0	12.1	64.7	3H	64.5
351046	N8605303	179	HRW	63.6	70.4	0.45	82.6	11.1	64.7	4H	64.5
351047	N8605304	181	HRW	63.8	72.6	0.39	87.8	11.9	64.8	4H	65.4
351048	N8605305	182	HRW	65.2	72.7	0.40	87.2	12.7	64.2	3H	65.6
351049	N8605703	6/196	HRW	63.8	73.4	0.38	89.0	13.9	65.3	3H	67.9

1/ Observed Values Corrected to 14% Moisture.

3/ Absorption at 14% Moisture Corrected to 12% Protein.

4/ Observed Values Corrected to 12% Protein.

\*350000 is the second half of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	CODI	CODIC 4/	LVOL	LVOLC 4/	BCRGR	RMKS
351015	HATTON I	C1017772	HRW	65.6	3.0			900	906	2	P-MTIME Q-BCRGR
351016	N8600301	2	HRW	64.3	1.9			900	912	3	
351017	N8600401	3	HRW	64.7	4.6			935	916	2	
351018	N8600902	14	HRW	65.1	2.5			900	937	2	Q-FYELD
351019	N8601102	28	HRW	65.1	1.4			915	940	4	P-MTIME&BCRGR
351020	N8601402	31	HRW	63.4	1.8			915	952	3	P-MTIME Q-BCRGR
351021	N8601601	34	HRW	68.4	5.4			890	940	2	P-FYELD
351022	N8601701	41	HRW	65.7	2.6			885	904	2	Q-FYELD&MTIME
351023	N8601702	42	HRW	64.7	2.9			865	884	2	Q-LVOL
351024	N8601802	47	HRW	64.6	4.6			940	971	2	
351025	N8601902	49	HRW	65.0	2.9			980	937	2	
351026	HATTON I I	C1017772	HRW	64.1	3.2			925	919	2	"Long MTIME"
351027	N8602102	62	HRW	63.8	8.3			980	943	2	
351028	N8602602	78	HRW	63.7	2.8			955	949	2	
351029	N8602603	77	HRW	61.9	2.2			905	979	4	Q-MTIME&BCRGR
351030	N8602801	81	HRW	63.2	2.3			905	936	3	Q-MTIME&BCRGR
351031	N8603103	85	HRW	62.6	1.2			850	844	6	P-MTIME, LVOL&BCRGR
351032	HATTON I I I	C1017772	HRW	64.5	3.0			925	900	3	
351033	N8603503	110	HRW	62.2	1.5			920	858	5	P-MTIME&BCRGR
351034	N8603504	111	HRW	63.0	1.9			815	846	6	P-MTIME&BCRGR
351035	N8603505	112	HRW	62.0	2.1			860	817	2	P-MTIME, BCRGR&LVOL
351036	N8603605	117	HRW	64.5	2.5			910	867	5	P-MTIME&BCRGR
351037	N8604102	129	HRW	66.0	2.8			1005	974	2	
351038	N8604601	148	HRW	62.5	2.1			1020	1014	2	Q-FYELD&MTIME
351039	HATTON IV	C1017772	HRW	65.6	3.2			1010	973	2	
351040	N8604702	158	HRW	66.6	3.9			955	980	2	Q-FYELD
351041	N8604701	159	HRW	66.7	4.1			955	961	2	Q-FYELD
351042	N8604903	161	HRW	65.2	4.2			995	970	3	Q-FYELD&BCRGR
351043	N8604901	163	HRW	65.3	4.6			1005	980	4	Q-FYELD&BCRGR
351044	N8605306	173	HRW	64.2	4.0			980	1011	4	Q-BCRGR
351045	N8605301	174	HRW	64.4	3.6			1010	1004	2	
351046	N8605303	179	HRW	65.4	4.0			880	936	4	Q-FYELD&BCRGR
351047	N8605304	181	HRW	65.5	4.2			925	931	4	Q-BCRGR
351048	N8605305	182	HRW	64.9	2.9			975	932	4	Q-BCRGR
351049	N8605703	196	HRW	66.0	3.5			980	862	2	Q-LVOL, Excel. Prot



## PRELIMINARY WINTER WHEAT

NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
351050	N8605704	197	HRW	62.8	71.5	0.38	87.3	12.6	63.6	2H	62.9
351051	HATTON V	C1017772	HRW	65.2	73.4	0.41	87.8	12.6	64.4	3H	65.7
351052	N8605701	206	HRW	63.8	73.8	0.38	89.5	11.3	64.4	3H	63.4
351053	N8605801	208	HRW	64.0	70.9	0.44	83.5	11.2	64.0	3H	63.9
351054	N8605802	210	HRW	62.4	70.0	0.40	84.3	10.9	64.5	8M	65.1
351055	N8605803	213	HRW	63.2	71.7	0.43	84.9	11.1	62.4	6M	62.2
351056	N8605804	214	HRW	62.2	70.3	0.44	83.0	11.2	63.5	6M	63.4
351057	N8605806	218	HRW	64.4	70.3	0.38	85.9	11.9	63.8	5H	64.4
351058	N8605901	5/ 224	HRW	63.0	71.9	0.39	87.0	13.6	64.6	5H	65.9
351059	N8605902	231	HRW	64.6	70.1	0.36	87.0	11.9	63.8	4H	64.4
351060	N8606001	6/ 242	HRW	63.2	71.8	0.44	84.5	11.2	64.3	6H	65.2
351061	N8606101	6/ 245	HRW	64.0	70.7	0.37	86.7	11.8	64.4	3H	64.4
351062	HATTON VI	C1017772	HRW	65.2	72.6	0.40	87.5	12.2	65.5	3H	65.9
351063	N8606301	6/ 254	HRW	63.6	72.2	0.37	88.2	12.3	66.0	5H	65.5
351064	N8605903	260	HRW	62.8	66.9	0.38	82.4	11.8	65.0	2H	64.5
351065	N8606401	262	HRW	63.0	72.1	0.42	85.6	12.3	64.1	1H	64.1
351066	N8606601	6/ 266	HRW	62.4	69.4	0.42	82.9	11.9	65.9	5H	66.5
351067	N8606604	269	HRW	63.0	69.1	0.44	81.6	12.2	66.7	7H	68.6
351068	N8606701	6/ 272	HRW	63.2	73.8	0.39	89.0	13.5	64.2	2H	65.4
351069	N8606901	279	HRW	63.2	67.8	0.36	84.2	11.7	68.3	5H	69.7
351070	N8607002	283	HRW	63.0	71.8	0.38	87.6	13.2	63.8	2H	64.7
351071	N8607003	284	HRW	63.0	70.7	0.41	84.6	12.7	65.6	2H	66.0
351072	N8607201	6/ 292	HRW	62.4	73.8	0.39	89.0	12.5	64.7	2H	64.9
351073	HATTON VII	C1017772	HRW	64.6	72.8	0.38	88.4	12.0	64.7	3H	65.4
351074	N8607301	306	HRW	62.8	73.8	0.39	89.0	12.3	64.5	3H	65.5
351075	N8607401	316	HRW	62.0	74.2	0.40	89.2	13.9	62.9	2H	64.5
351076	N8607502	6/ 332	HRW	63.4	74.1	0.39	89.5	12.0	64.3	4H	63.5
351077	N8607501	6/ 333	HRW	63.8	74.3	0.39	89.7	12.2	63.2	4H	64.1
351078	N8607601	5/ 337	HRW	64.0	74.2	0.34	91.9	13.0	65.7	3H	66.4
351079	N8607801	5/ 343	HRW	63.0	74.5	0.34	92.5	12.2	65.1	4H	66.5
351080	N8607802	6/ 345	HRW	62.8	74.6	0.35	92.0	12.4	64.5	4H	65.6
351081	HATTON VIII	C1017772	HRW	64.4	72.7	0.41	86.9	12.8	65.0	3H	65.5
351082	N8608101	6/ 365	HRW	63.0	72.1	0.40	86.9	12.1	64.6	4H	65.4
351083	N8608102	366	HRW	62.6	71.7	0.39	86.8	13.0	65.2	4H	66.9
351084	N8608103	6/ 367	HRW	62.6	72.4	0.39	87.6	12.0	64.4	3H	65.1





USDA, SEA AR  
WESTERN WHEAT QUALITY LAB.  
PULLMAN, WA.

## PRELIMINARY WINTER WHEAT

NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	CODI	CODIC 4/	LVOL	LVOLC 4/	BCRGR	RMKS
351050	N8605704	197	HRW	62.3	1.9			935	898	4	P-MTIME Q-BCRGR
351051	HATTON V	C1017772	HRW	65.1	2.9			995	958	2	
351052	N8605701	206	HRW	64.1	3.9			875	918	5	Q-LVOL&BCRGR
351053	N8605801	208	HRW	64.7	3.2			965	1015	3	Q-FYELD&BCRGR
351054	N8605802	210	HRW	66.2	4.1			925	993	5	Q-FYELD&BCRGR
351055	N8605803	213	HRW	63.1	3.6			950	1006	5	Q-BCRGR
351056	N8605804	214	HRW	64.2	3.5			1010	1060	6	Q-FYELD&BCRGR
351057	N8605806	218	HRW	64.5	4.1			850	856	6	Q-FYELD, LVOL&BCRGR
351058	N8605901	224	HRW	64.3	4.7			1105	1006	2	
351059	N8605902	231	HRW	64.5	3.7			870	876	6	P-LVOL&BCRGR
351060	N8606001	242	HRW	66.0	5.1			965	1015	2	
351061	N8606101	245	HRW	64.6	2.8			980	992	2	Q-FYELD
351062	HATTON V	C1017772	HRW	65.7	3.2			985	973	2	
351063	N8606301	254	HRW	65.2	3.7			1020	1001	3	Q-BCRGR
351064	N8605903	260	HRW	64.7	2.3			985	997	2	P-FYELD&MTIME
351065	N8606401	262	HRW	63.8	1.7			910	891	7	P-MTIME, LVOL&BCRGR
351066	N8606601	266	HRW	66.6	5.2			1050	1056	2	Q-FYELD
351067	N8606604	269	HRW	68.4	8.6			1030	1018	2	Q-FYELD&MTIME
351068	N8606701	272	HRW	63.9	2.5			1175	1082	2	
351069	N8606901	279	HRW	70.0	4.1			950	969	3	P-FYELD
351070	N8607002	283	HRW	63.5	1.8			975	901	6	P-MTIME, LVOL&BCRGR
351071	N8607003	284	HRW	65.3	2.3			955	912	3	Q-MTIME, LVOL&BCRGR
351072	N8607201	292	HRW	64.4	2.5			1005	974	3	Q-BCRGR
351073	HATTON VII	C1017772	HRW	65.4	3.2			1000	1000	3	
351074	N8607301	306	HRW	65.2	3.6			1000	981	4	Q-BCRGR
351075	N8607401	316	HRW	62.6	1.8			980	862	6	P-MTIME, LVOL&BCRGR
351076	N8607502	332	HRW	63.5	5.2			985	985	4	Q-BCRGR
351077	N8607501	333	HRW	63.9	4.2			1020	1008	3	
351078	N8607601	337	HRW	65.4	2.5			1105	1043	2	
351079	N8607801	343	HRW	66.3	3.6			1050	1038	2	
351080	N8607802	345	HRW	65.2	3.7			1000	975	3	
351081	HATTON VIII	C1017772	HRW	64.7	2.9			1010	960	2	
351082	N8608101	365	HRW	65.3	4.0			990	984	4	Q-BCRGR
351083	N8608102	366	HRW	65.9	3.5			935	873	4	Q-LVOL&BCRGR
351084	N8608103	367	HRW	65.1	2.9			970	970	4	Q-BCRGR



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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
351085 N8608202		6/ 376	HRW	63.2	70.7	0.39	85.9	12.9	64.8	4H	66.4
351086 N8608403		5/ 378	HRW	64.0	73.5	0.40	88.2	13.3	64.6	3H	66.6
351087 N8608404		6/ 379	HRW	62.4	71.2	0.37	87.3	11.6	65.2	5H	66.5
351088 N8608402		6/ 380	HRW	64.2	71.6	0.37	87.8	12.8	63.5	2H	65.0
351089 N8608501		382	HRW	62.6	68.8	0.39	83.9	12.5	64.7	2H	65.9
351090 N8608601		6/ 380	HRW	64.0	69.5	0.37	85.6	12.8	66.1	5H	68.6
351091 N8608704		6/ 394	HRW	62.0	72.0	0.38	87.6	12.4	64.0	6H	65.1
351092 HATTON IX		C1017772	HRW	64.2	70.7	0.40	85.5	12.7	63.9	2H	64.3
351093 N8609301		5/ 413	HRW	62.8	70.8	0.40	85.6	11.3	63.8	3H	63.8
351094 N8609401		6/ 415	HRW	62.4	70.8	0.40	85.5	11.7	63.9	3H	64.3
351095 N8609402		5/ 416	HRW	63.2	71.0	0.38	86.6	11.8	63.9	5H	65.4
351096 N8609902		443	HRW	61.4	72.3	0.39	87.7	12.1	63.2	2H	63.0
351097 N8609904		447	HRW	62.0	72.1	0.38	88.1	12.6	62.7	2H	63.0
351098 N8609905		448	HRW	61.6	71.5	0.39	86.9	12.6	62.9	2H	62.2
351099 HATTON X		C1017772	HRW	62.6	71.0	0.40	85.4	13.1	64.5	3H	66.3
351100 N8610001		6/ 452	HRW	61.6	69.9	0.35	86.9	13.0	63.7	3H	65.4
351101 N8610101		6/ 453	HRW	61.0	70.6	0.37	86.7	12.6	63.1	3H	64.4
351102 N8610202		454	HRW	61.6	68.5	0.44	80.9	12.5	61.8	3H	62.0
351103 N8610203		6/ 456	HRW	62.6	68.8	0.39	83.9	11.7	64.9	3H	65.3
351104 N8610201		6/ 474	HRW	61.6	68.9	0.38	84.4	12.0	64.3	3H	64.0
351105 N8610205		464	HRW	62.4	68.0	0.36	84.3	10.4	63.8	8M	62.9
351106 N8610206		465	HRW	62.8	69.9	0.38	85.3	11.5	64.2	3H	63.4
351107 N8610207		466	HRW	61.8	67.2	0.40	81.8	12.0	64.3	4H	65.0
351108 N8610208		6/ 468	HRW	63.2	69.2	0.38	84.9	12.0	63.7	3H	64.4
351109 N8610211		472	HRW	62.0	68.2	0.36	84.7	11.9	64.3	3H	63.9
351110 N8610602		6/ 478	HRW	61.6	69.8	0.39	84.8	12.7	65.1	5H	66.5
351111 N8610801		5/ 480	HRW	62.8	70.2	0.37	86.4	12.2	64.1	4H	65.0
351112 N8611014		492	HRW	62.8	71.9	0.36	88.7	12.1	63.7	2H	63.5
351113 N8611008		493	HRW	64.4	72.1	0.32	90.9	11.2	63.6	3M	62.5
351114 N8611009		494	HRW	62.8	68.6	0.39	83.8	13.0	66.7	5H	68.9
351115 N8611010		6/ 496	HRW	62.4	71.3	0.37	87.3	12.1	63.2	3H	63.0
351116 N8611011		6/ 497	HRW	62.6	70.0	0.37	86.2	12.9	64.4	3H	66.0
351117 N8611012		6/ 498	HRW	62.6	70.8	0.40	85.4	12.1	63.2	3H	63.2
351118 HATTON XI		C1017772	HRW	64.4	70.5	0.39	85.5	12.0	64.2	4H	63.9
351119 N8611013		501	HRW	63.0	70.8	0.37	87.0	11.3	63.0	5H	63.0



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LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	CODI	CODIC 4/	LVOL	LVOLC 4/	BCRGR	RMKS
351085	N8608202	376	HRW	65.5	3.5			975	919		2 Q-FYELD
351086	N8608403	378	HRW	65.3	3.0			1145	1064		2
351087	N8608404	379	HRW	66.9	3.7			945	970		4 Q-BCRGR
351088	N8608402	380	HRW	64.2	2.3			1160	1110		2 Q-MTIME
351089	N8608501	382	HRW	65.4	2.3			1135	1104		4 P-FYELD
351090	N8608601	380	HRW	67.8	4.2			1125	1075		2 Q-FYELD
351091	N8608704	394	HRW	64.7	5.1			985	960		3 Q-BCRGR
351092	HATTON IX	C1017772	HRW	63.6	2.6			1065	1022		4
351093	N8609301	413	HRW	64.5	2.6			1100	1143		2
351094	N8609401	415	HRW	64.6	2.4			1045	1064		3
351095	N8609402	416	HRW	65.6	4.0			1105	1117		3
351096	N8609902	443	HRW	62.9	1.9			905	899		6 P-MTIME, LVOL&BCRGR
351097	N8609904	447	HRW	62.4	2.1			975	938		5 Q-MTIME, LVOL&BCRGR
351098	N8609905	448	HRW	61.6	1.8			965	928		5 Q-MTIME, LVOL&BCRGR
351099	HATTON X	C1017772	HRW	65.2	3.2			950	882		2
351100	N8610001	452	HRW	64.4	3.4			1030	968		2
351101	N8610101	453	HRW	63.8	3.1			975	938		4 Q-BCRGR
351102	N8610202	454	HRW	61.5	2.6			1055	1024		2 P-FYELD
351103	N8610203	456	HRW	65.6	3.3			1065	1084		2 Q-FYELD
351104	N8610201	474	HRW	64.0	2.9			1090	1090		2
351105	N8610205	464	HRW	64.5	3.4			935	1034		6 P-BCRGR
351106	N8610206	465	HRW	63.9	2.6			975	1006		5 P-BCRGR
351107	N8610207	466	HRW	65.0	3.5			1100	1100		2 P-FYELD
351108	N8610208	468	HRW	64.4	3.5			1175	1175		2
351109	N8610211	472	HRW	64.0	3.3			1110	1116		3 Q-FYELD&BCRGR
351110	N8610602	478	HRW	65.8	4.6			965	922		2
351111	N8610801	480	HRW	64.8	3.3			1050	1038		1
351112	N8611014	492	HRW	63.4	2.9			970	964		5 P-BCRGR
351113	N8611008	493	HRW	63.3	1.4			865	915		7 P-MTIME, LVOL&BCRGR
351114	N8611009	494	HRW	67.9	5.1			1025	963		3 Q-FYELD&BCRGR
351115	N8611010	496	HRW	62.9	3.0			955	949		4 Q-BCRGR
351116	N8611011	497	HRW	65.1	2.6			990	934		2
351117	N8611012	498	HRW	62.9	2.3			970	964		3 Q-BCRGR
351118	HATTON XI	C1017772	HRW	63.9	3.0			985	985		2
351119	N8611013	501	HRW	63.7	3.9			890	933		4 Q-BCRGR



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LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE	BABS
351120	N8611202	6/506	HRW	64.4	71.8	0.37	87.9	12.7	65.1	5H	67.5
351121	N8611201	6/509	HRW	62.8	69.8	0.38	85.5	11.0	63.7	4H	62.4
351122	N8611301	5/511	HRW	62.4	71.7	0.40	86.4	12.2	63.6	4H	64.0
351123	N8611504	517	HRW	62.6	70.4	0.36	87.1	11.7	65.5	5H	66.4
351124	N8611502	519	HRW	63.8	72.2	0.33	90.3	12.1	64.6	4H	64.9
351125	N8611601	6/522	HRW	64.0	69.5	0.39	84.5	11.6	65.7	7H	66.0
351126	N8611602	6/523	HRW	64.6	71.8	0.39	87.2	11.7	64.0	4H	64.4
351127	N8611603	6/524	HRW	64.0	70.5	0.37	86.8	12.8	64.0	3H	65.5
351128	N8611702	6/526	HRW	65.0	72.3	0.34	90.1	12.3	64.0	4H	65.0
351129	N8611701	6/527	HRW	64.2	72.0	0.35	89.4	12.7	64.2	3H	64.6
351130	N8609202	6/538	HRW	63.6	70.1	0.40	84.8	13.0	65.5	6H	68.2
351131	N8610603	6/542	HRW	64.0	71.2	0.39	86.3	11.5	65.2	5H	66.4
351132	N8611801	6/545	HRW	63.0	69.4	0.36	86.2	12.2	65.0	4H	65.9
351133	HATTON X11	C1017772	HRW	63.2	70.5	0.41	84.8	13.1	63.8	2H	64.6
351134	N8612303	6/571	HRW	63.6	72.2	0.41	86.6	11.3	64.1	3H	63.1
351135	N8612301	6/573	HRW	62.4	69.4	0.42	82.7	13.4	63.3	3H	65.4
351136	N8612302	576	HRW	64.0	71.4	0.39	86.8	12.5	63.5	2H	63.7
351137	N8612805	5/581	HRW	63.4	70.6	0.37	86.8	12.3	64.1	2H	64.1
351138	N8612806	586	HRW	63.4	70.2	0.35	87.3	10.5	63.3	3M	61.5
351139	N8612802	588	HRW	62.6	72.1	0.39	87.4	11.4	63.4	3M	62.5
351140	N8612803	5/592	HRW	63.8	72.5	0.36	89.0	12.3	62.5	2H	62.5
351141	N8612804	5/593	HRW	63.2	71.2	0.36	88.2	11.9	63.0	3H	63.6
351142	HATTON X111	C1017772	HRW	64.2	61.2	0.38	76.4	12.2	65.5	3H	65.4
351143	N8613202	604	HRW	64.0	70.6	0.40	85.4	12.0	63.2	2H	62.9
351144	N8613203	6/606	HRW	64.0	70.9	0.36	87.4	12.2	64.6	4H	65.5
351145	N8613204	6/608	HRW	63.6	70.7	0.40	85.6	13.0	66.4	3H	68.1
351146	N8613201	6/609	HRW	63.2	71.8	0.40	86.4	12.6	63.9	2H	64.2
351147	N8600101	611	HRW	62.4	66.5	0.42	80.1	11.4	65.1	2H	64.2
351148	N8608702	621	HRW	62.4	69.7	0.41	84.0	12.6	65.8	5H	68.1
351149	N8613301	6/627	HRW	64.4	70.2	0.36	86.7	12.0	65.3	3H	65.0
351150	N8613302	628	HRW	63.0	70.5	0.36	87.0	12.0	64.8	2H	64.5
351151	N8613304	636	HRW	62.8	71.3	0.34	89.3	11.8	64.2	3H	63.7
351152	N8613305	637	HRW	63.6	71.8	0.41	85.8	11.7	65.6	3H	66.0
351153	N8613306	638	HRW	65.0	71.3	0.35	88.5	11.4	63.8	8M	63.9
351154	N8605201	650	HRW	63.6	70.9	0.39	85.9	12.5	66.4	5H	67.6





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LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	CODI	CODIC 4/	LVOL	LVOLC 4/	BCRGR	RMKS
351120	N8611202	506	HRW	66.8	4.5			975	932	2	Q-BCRGR
351121	N8611201	509	HRW	63.4	3.7			930	992	3	Q-BCRGR
351122	N8611301	511	HRW	63.8	4.3			1030	1018	2	
351123	N8611504	517	HRW	66.7	3.9			925	944	4	Q-BCRGR
351124	N8611502	519	HRW	64.8	3.6			860	854	6	P-LVOL&BCRGR
351125	N8611601	522	HRW	66.4	8.5			940	965	2	
351126	N8611602	523	HRW	64.7	4.2			950	969	2	
351127	N8611603	524	HRW	64.7	4.1			945	895	2	Q-LVOL
351128	N8611702	526	HRW	64.7	4.3			945	926	2	
351129	N8611701	527	HRW	63.9	2.6			985	942	2	
351130	N8609202	538	HRW	67.2	5.5			975	913	2	Q-LVOL
351131	N8610603	542	HRW	66.9	4.7			970	1001	3	Q-BCRGR
351132	N8611801	545	HRW	65.7	3.1			975	963	2	
351133	HATTON XII	C1017772	HRW	63.5	2.2			930	862	3	
351134	N8612303	571	HRW	63.8	2.8			930	973	3	
351135	N8612301	573	HRW	64.0	3.5			1040	953	3	
351136	N8612302	576	HRW	63.2	2.1			950	919	4	Q-BCRGR
351137	N8612805	581	HRW	63.8	2.2			1000	981	2	
351138	N8612806	586	HRW	63.0	1.8			830	923	6	P-MTIME&BCRGR
351139	N8612802	588	HRW	63.1	2.3			920	957	6	P-MTIME&BCRGR
351140	N8612803	592	HRW	62.2	2.9			1015	996	2	
351141	N8612804	593	HRW	63.7	3.0			970	976	2	
351142	HATTON XII	C1017772	HRW	65.2	2.9			965	953	2	Atypical FYELD
351143	N8613202	604	HRW	62.9	1.5			915	915	4	P-MTIME Q-LVOL&BCRGR
351144	N8613203	606	HRW	65.3	2.9			1000	988	3	Q-BCRGR
351145	N8613204	608	HRW	67.1	2.6			1040	978	3	Q-BCRGR
351146	N8613201	609	HRW	63.6	2.8			985	948	3	Q-BCRGR
351147	N8600101	611	HRW	64.8	2.2			950	987	4	P-FYELD, MTIME&BCRGR
351148	N8608702	621	HRW	67.5	3.7			1005	968	4	QBCRGR
351149	N8613301	627	HRW	65.0	3.2			920	920	2	
351150	N8613302	628	HRW	64.5	2.8			880	880	3	Q-LVOL&BCRGR
351151	N8613304	636	HRW	63.9	2.6			885	897	3	Q-LVOL&BCRGR
351152	N8613305	637	HRW	66.3	2.5			915	934	6	P-BCRGR
351153	N8613306	638	HRW	64.5	4.3			885	922	5	P-BCRGR
351154	N8605201	650	HRW	67.1	3.7			1010	979	5	P-BCRGR



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LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/ 3/	MSCOR	FPROT 1/ 3/	MABSC 3/	MTYPE	BABS
351155	NUGAINES	C1013968	SWW	63.2	66.7	0.41	79.9	11.4	59.9	2H	
351156	MORO	C1013740	CLUB	61.6	70.6	0.47	80.9	11.0	56.4	2M	
351157	N8600503	6/ 653	SWW	64.0	69.2	0.39	84.5	11.2	53.8	1M	
351158	N8600502	6/ 654	SWW	63.6	68.3	0.38	83.9	11.9	57.1	1H	
351159	N8600705	6/ 657	SWW	61.8	71.8	0.42	85.8	11.1	57.5	1H	
351160	N8600706	5/ 658	SWW	64.0	72.6	0.38	89.5	11.0	58.0	2M	
351161	N8600701	6/ 659	SWW	61.6	71.6	0.45	83.5	12.4	57.6	1H	
351162	N8600702	6/ 660	SWW	62.4	72.6	0.42	86.5	11.7	57.3	1H	
351163	N8602502	6/ 677	SWW	64.0	70.6	0.42	84.5	11.8	55.6	1H	
351164	N8602604	679	SWW	62.6	67.2	0.43	79.5	11.0	58.4	1H	
351165	N8602601	681	SWW	61.4	65.4	0.42	77.5	10.6	59.5	1H	
351166	N8603901	6/ 686	SWW	63.2	70.5	0.40	85.1	12.5	56.9	1H	
351167	N8604001	6/ 688	SWW	62.0	69.1	0.39	84.0	11.0	59.9	1H	
351168	N8604302	6/ 693	SWW	63.2	69.0	0.42	82.2	12.4	57.9	1H	
351169	NUGAINES	C1013968	SWW	63.0	66.7	0.40	80.3	10.7	59.7	2H	
351170	MORO	C1013740	CLUB	61.6	71.4	0.47	82.1	11.1	57.7	3M	
351171	N8604401	703	SWW	62.8	64.2	0.42	75.8	11.3	58.8	2H	
351172	N8604502	6/ 707	SWW	62.6	68.9	0.40	83.2	10.8	58.1	1H	
351173	N8604602	6/ 710	SWW	61.6	68.8	0.42	82.1	10.5	56.1	2M	
351174	N8604801	714	SWW	62.8	65.7	0.38	80.8	11.3	59.6	3H	
351175	N8605401	716	SWW	62.6	64.3	0.39	77.9	11.1	60.8	4M	
351176	N8605601	718	SWW	63.6	67.1	0.41	80.6	11.6	58.7	2M	
351177	N8606603	726	HWW	62.6	64.1	0.46	75.5	11.7	65.0	5H	66.4
351178	N8609906	6/ 734	SWW	63.0	68.2	0.41	82.0	11.1	60.7	2M	
351179	N8609907	735	SWW	62.0	66.0	0.44	77.2	11.3	60.3	3H	
351180	N8611015	6/ 736	SWW	63.0	69.5	0.42	83.0	12.2	60.6	1H	
351181	N8611016	6/ 737	SWW	63.2	68.8	0.43	81.3	12.1	61.0	1H	
351182	N8611017	5/ 738	SWW	62.8	70.2	0.43	83.3	12.4	60.1	1H	
351183	N8611001	6/ 739	SWW	63.2	69.2	0.42	82.7	11.9	59.6	1H	
351184	N8611002	5/ 740	SWW	63.0	70.9	0.44	83.3	12.6	59.8	1H	
351185	N8611003	5/ 741	SWW	63.6	71.1	0.44	83.5	12.3	59.7	1H	
351186	N8611004	5/ 742	SWW	63.0	70.1	0.31	90.3	12.2	59.9	1H	
351187	N8611005	6/ 743	SWW	62.8	69.5	0.43	82.4	11.7	60.3	1H	
351188	N8611006	5/ 744	SWW	62.4	71.3	0.45	83.5	12.6	59.9	1H	
351189	N8611007	5/ 745	SWW	63.2	71.4	0.45	83.1	11.8	60.8	1H	



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LABNUM	VARIETY	IDNO	CLASS	BABSC 3/	MTIME	CODI	CODIC 4/	LVOL	LVOLC 4/	BCRGR	RMKS
351155	NUGAINES	C1013968	SWW			9.05	8.98				Atypical FYELD
351156	MORO	C1013740	CLUB			9.36	9.27				Atypical FYELD
351157	N8600503	653	SWW			9.41	9.32				Q-FYELD
351158	N8600502	654	SWW			9.07	9.06				
351159	N8600705	657	SWW			9.30	9.20				
351160	N8600706	658	SWW			9.27	9.16				
351161	N8600701	659	SWW			9.09	9.13				High Ash
351162	N8600702	660	SWW			9.16	9.13				
351163	N8602502	677	SWW			8.97	8.95				
351164	N8602604	679	SWW			9.26	9.15				P-FYELD
351165	N8602601	681	SWW			9.12	8.97				P-FYELD
351166	N8603901	686	SWW			8.87	8.93				
351167	N8604001	688	SWW			9.09	8.98				
351168	N8604302	693	SWW			8.99	9.03				
351169	NUGAINES	C1013968	SWW			9.04	8.88				
351170	MORO	C1013740	CLUB			9.42	9.34				
351171	N8604401	703	SWW			9.05	8.97				P-FYELD
351172	N8604502	707	SWW			8.97	8.84				Q-FYELD
351173	N8604602	710	SWW			9.26	9.10				Q-FYELD
351174	N8604801	714	SWW			9.21	9.14				P-FYELD
351175	N8605401	716	SWW			8.87	8.78				P-FYELD
351176	N8605601	718	SWW			8.96	8.92				P-FYELD
351177	N8606603	726	HWW		5.6	8.44	8.41	965	984		2P-FYELD Excel. Baking
351178	N8609906	734	SWW	66.7		9.05	8.95				Q-FYELD
351179	N8609907	735	SWW			8.77	8.70				P-FYELD&CODI
351180	N8611015	736	SWW			9.11	9.13				
351181	N8611016	737	SWW			9.24	9.25				Q-FYELD
351182	N8611017	738	SWW			9.01	9.06				
351183	N8611001	739	SWW			9.20	9.19				
351184	N8611002	740	SWW			9.00	9.07				
351185	N8611003	741	SWW			9.10	9.13				
351186	N8611004	742	SWW			9.09	9.11				
351187	N8611005	743	SWW			8.96	8.93				
351188	N8611006	744	SWW			9.14	9.20				
351189	N8611007	745	SWW			9.14	9.12				

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LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/ 1/		1/ 1/	3/ 3/		
351190 N8603102		748	HWW	63.6	69.7	0.39	84.9	10.7	64.3	2H	62.7
351191 NUGAINES		C1013968	SWW	62.6	68.9	0.40	83.2	11.5	61.5	1H	
351192 N8600201		751	SWW	61.6	65.9	0.40	79.2	11.0	61.0	2M	
351193 N8600504		6/ 752	SWW	63.6	69.7	0.43	82.2	11.1	59.3	2M	
351194 N8606801		5/ 769	SWW	62.8	71.9	0.41	86.4	10.7	59.6	2M	
351195 N8601801		781	HRW	63.6	74.2	0.35	91.8	12.4	61.1	1H	61.2
351196 HATTON XVII		C1017772	HRW	65.0	72.3	0.36	88.9	12.0	64.2	3H	64.4
351197 N8603506		803	HRW	63.4	72.5	0.36	89.5	12.6	63.6	2H	63.9
351198 N8603602		6/ 805	HRW	63.4	73.9	0.35	91.4	13.6	63.3	4H	65.6
351199 N8603702		808	HRW	63.2	73.7	0.35	91.3	13.7	59.8	1H	61.2
351200 N8604002		6/ 811	HRW	63.2	70.1	0.36	86.7	11.0	64.3	5H	64.0
351201 N8604201		816	HRW	63.2	73.0	0.34	90.9	12.2	63.1	5H	64.0
351202 N8605702		826	HRW	64.8	71.6	0.36	88.5	11.6	63.6	2H	62.9
351203 N8609701		842	HRW	63.2	70.4	0.38	86.0	11.1	63.4	5H	64.2
351204 N8609792		843	HRW	63.2	69.9	0.40	84.7	14.4	64.6	2H	66.7
351205 N8607702		6/ 844	HRW	63.6	72.8	0.35	90.1	10.9	62.5	3H	62.1
351206 N8607703		840	HRW	64.4	72.5	0.33	91.0	11.3	61.6	3H	61.6
351207 HATTON XVIII		C1017772	HRW	64.6	71.4	0.38	86.9	12.1	63.7	3H	64.0
351208 N8608003		5/ 852	HRW	63.2	71.3	0.36	87.8	12.1	63.2	5H	65.0
351209 N8608001		6/ 856	HRW	63.2	71.8	0.31	91.2	12.5	64.4	6H	66.6
351210 N8608002		857	HRW	62.4	71.3	0.36	88.1	11.3	64.1	5H	65.1
351211 N8608401		6/ 860	HRW	64.4	72.4	0.37	88.5	13.2	64.1	3H	66.0
351212 N8608901		865	HRW	63.0	71.2	0.35	88.5	12.6	63.1	1H	63.4
351213 N8609101		6/ 867	HRW	62.8	72.9	0.35	90.4	11.4	62.9	3H	63.0
351214 N8609501		6/ 869	HRW	62.4	70.0	0.32	88.5	11.7	61.6	4M	61.0
351215 N8609601		873	HRW	61.8	68.3	0.39	83.1	11.5	62.6	5H	62.8
351216 N8610102		886	HRW	63.2	69.7	0.37	85.6	12.4	64.3	3H	65.4
351217 N8610701		896	HRW	64.0	70.2	0.40	85.0	13.0	64.2	3H	65.9
351218 N8610702		5/ 897	HRW	64.2	72.2	0.38	87.9	12.9	65.6	5H	68.2
351219 HATTON XIX		C1017772	HRW	65.0	71.5	0.38	87.0	11.4	64.8	3H	63.9
351220 N8610901		6/ 901	HRW	62.6	68.4	0.37	84.4	12.6	65.2	4H	67.0
351221 N8611501		904	HRW	63.2	70.4	0.40	85.2	11.6	64.5	5H	65.8
351222 N8609203		6/ 911	HRW	63.0	69.4	0.41	83.7	12.3	65.1	6H	67.1
351223 N8609201		912	HRW	63.0	68.7	0.39	83.8	11.9	66.2	6H	67.8
351224 N8612103		6/ 918	HRW	62.8	71.2	0.38	86.9	11.6	65.8	5H	66.1

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NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	CODI	CODIC	LVOL	LVOLC	BCRGR	RMKS
				3/				4/			
351190	N8603102	748	HRW	64.0	1.9	8.50	8.40	900	981	6	P-MTIME&BCRGR
351191	NUGAINES	C1013968	SWW			9.06	9.00				
351192	N8600201	751	SWW			9.10	8.99				P-FYELD
351193	N8600504	752	SWW			9.06	8.96				
351194	N8606801	769	SWW			9.25	9.11				
351195	N8601801	781	HRW	60.8	1.4			790	765	8	P-MTIME, LVOL&BCRGR
351196	HATTON XVII	C1017772	HRW	64.4	2.9			970	970	2	
351197	N8603506	803	HRW	63.3	1.7			890	853	6	P-MTIME, LVOL&BCRGR
351198	N8603602	805	HRW	64.0	3.2			990	891	2	Q-LVOL
351199	N8603702	808	HRW	59.5	1.3			770	665	8	P-MTIME, LVOL&BCRGR
351200	N8604002	811	HRW	65.0	3.7			940	1002	3	Q-BCRGR
351201	N8604201	816	HRW	63.8	4.2			950	938	4	Q-BCRGR
351202	N8605702	826	HRW	63.3	2.1			925	950	4	Q-MTIME&BCRGR
351203	N8609701	842	HRW	65.1	4.4			870	926	5	P-BCRGR
351204	N8609792	843	HRW	64.3	1.7			1095	946	4	Q-MTIME&BCRGR
351205	N8607702	844	HRW	63.2	3.3			970	1038	3	Q-BCRGR
351206	N8607703	840	HRW	62.3	2.9			880	923	4	Q-LVOL&BCRGR
351207	HATTON XVIII	C1017772	HRW	63.9	2.9			980	974	4	
351208	N8608003	852	HRW	64.9	4.2			1030	1024	2	Q-BCRGR
351209	N8608001	856	HRW	66.1	5.5			975	944	3	
351210	N8608002	857	HRW	65.8	4.5			975	1018	4	Q-BCRGR
351211	N8608401	860	HRW	64.8	3.1			1050	976	2	
351212	N8608901	865	HRW	62.8	1.2			955	918	5	P-MTIME&BCRGR
351213	N8609101	867	HRW	63.6	3.5			935	972	3	Q-BCRGR
351214	N8609501	869	HRW	61.3	3.2			995	1014	3	Q-BCRGR
351215	N8609601	873	HRW	63.3	4.7			990	1021	4	Q-FYELD&BCRGR
351216	N8610102	886	HRW	65.0	2.8			990	965	3	Q-FYELD&BCRGR
351217	N8610701	896	HRW	64.9	2.3			1080	1018	4	P-MTIME&BCRGR
351218	N8610702	897	HRW	67.3	5.6			1060	1004	2	
351219	HATTON XIX	C1017772	HRW	64.5	2.8			970	1007	4	
351220	N8610901	901	HRW	66.4	4.4			1115	1078	2	Q-FYELD
351221	N8611501	904	HRW	66.2	5.0			975	1000	4	Q-FYELD&BCRGR
351222	N8609203	911	HRW	66.8	5.4			1070	1051	1	Q-FYELD
351223	N8609201	912	HRW	67.9	5.8			1020	1026	3	Q-FYELD&BCRGR
351224	N8612103	918	HRW	66.5	5.0			940	965	2	



NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE	BABS
						1/		1/	3/		
351225	N8612507	6/ 928	HRW	63.2	71.3	0.36	88.1	12.4	63.5	3H	63.6
351226	N8612701	6/ 931	HRW	63.0	71.9	0.41	86.2	12.4	63.8	5H	65.9
351227	N8607902	941	HRW	62.4	69.9	0.37	85.8	11.8	65.3	4H	65.8
351228	N8611503	6/ 946	HRW	64.0	71.5	0.38	87.3	12.6	66.4	5H	68.7
351229	HATTON XX	C1017772	HRW	62.8	71.4	0.34	89.4	12.2	63.7	3H	63.6
351230	N8603207	956	HRW	63.4	72.8	0.38	88.4	12.5	58.8	1H	59.0
351231	N8610704	996	HRW	64.8	70.1	0.38	85.8	13.0	64.5	4H	66.2
351232	N8611101	6/ 1003	HRW	62.8	71.8	0.37	88.2	11.8	63.5	3H	64.0
351233	N8611505	1007	HRW	64.4	69.6	0.35	86.6	12.9	65.0	4H	66.6
351234	N8612505	1027	HRW	62.4	70.1	0.38	85.8	13.1	64.4	3H	66.2

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NURSCO 90

LIND, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABSC	MTIME	CODI	CODIC	LVOL	LVOLC	BCRGR	RMKS
				<u>3/</u>			<u>4/</u>		<u>4/</u>		
351225	N8612507	928	HRW	63.2	3.4			960	935	3	Q-LVOL
351226	N8612701	931	HRW	65.5	5.3			935	910	2	Q-FYELD&BCRGR
351227	N8607902	941	HRW	66.0	4.2			925	937	3	Q-LVOL
351228	N8611503	946	HRW	68.1	3.7			915	878	2	Q-LVOL
351229	HATTON XX	C1017772	HRW	63.4	2.8			1005	993	4	
351230	N8603207	956	HRW	58.5	1.1			735	704	9	P-MTIME, LVOL&BCRGR
351231	N8610704	996	HRW	65.2	3.6			960	898	2	Q-FYELD&LVOL
351232	N8611101	1003	HRW	64.2	3.9			1015	1027	2	
351233	N8611505	1007	HRW	65.7	3.4			915	859	3	Q-FYELD, LVOL
351234	N8612505	1027	HRW	65.1	3.5			1010	942	4	Q-FYELD&BCRGR

COMMENTS: Several of these selections have promising overall quality characteristics for HRW wheat and others are marginal in certain factors but were footnoted as promising (see Remarks for deficiencies). All were judged according to the qualities of the Hatton check preceeding the experimental selection. The soft white selections were notably poor in flour milling properties, including the Nugaines and Moro checks which were atypical. The most common weakness in the HRW selections were short mixing times and heavy bread crumb grains.

P = Poor; Q = Questionable



DATE	TIME	LOCATION	WIND	TEMP	REL. HUM.	SEA
11						

1	0800	0800	0800	0800	0800	0800
2	0810	0810	0810	0810	0810	0810
3	0820	0820	0820	0820	0820	0820
4	0830	0830	0830	0830	0830	0830
5	0840	0840	0840	0840	0840	0840

6	0850	0850	0850	0850	0850	0850
7	0900	0900	0900	0900	0900	0900
8	0910	0910	0910	0910	0910	0910
9	0920	0920	0920	0920	0920	0920
10	0930	0930	0930	0930	0930	0930

The following table shows the results of the observations made during the voyage. The columns are: Date, Time, Location, Wind, Temperature, Relative Humidity, and Sea. The data is recorded for each hour from 0800 to 0930.

## AUSTRALIAN STANDARD WHITE

## AUSTRALIA

John W. Sullivan

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC
351235 AUSTRALIAN STANDARD WHITE			SWW	64.2	73.8	<u>1</u> /	82.2	<u>1</u> /	<u>3</u> /
						0.47		9.6	62.0
LABNUM	VARIETY	IDNO	CLASS	MTYPE	CODI	CODIC	CAVOL	SCSOR	RMKS
351235 AUSTRALIAN STANDARD WHITE			SWW	8M	7.71	<u>4</u> /	960	47.0	

1/ Observed Values Corrected to 14% Moisture Basis.3/ Absorption at 14% Moisture Corrected 10% Protein.4/ Observed Values Corrected to 10% Protein.5/ Particularly Promising Overall Quality Characteristics.6/ Promising Overall Quality Characteristics.

COMMENTS: This commercial sample of ASW was milled and test baked in cooperation with the PNW Soft Wheat Specialist and U.S. Wheat Associates.

The sample was high in flour ash, very low and poor in cookie diameter and sponge cake volume and score.



NURSCO 93

LABNUM	VARIETY	IDNO	CLASS	WPROT	FYELD	FASH	MSCOR	FPROT	AGTRO	MABSC	MTYPE	VISC	CODI	CODIC
					1/	1/		1/		3/				4/
* 351246	NUGAINES --PULLMAN WINTER--	C1013968	SWW	9.1	69.7	0.36	82.2	7.6	79.0	58.0	3L	100	8.52	8.37
351247	DAWS	C1017419	SWW	9.0	70.8	0.38	82.3	7.8	83.0	55.4	5L	99	8.67	8.54
351248	STEPHENS	C1017596	SWW	9.1	71.6	0.39	81.2	7.8	84.5	57.3	4L	60	8.51	8.38
351249	HATTON	C1017772	HRW	10.4	72.5	0.33	88.2	9.6	69.8	61.5	6M		7.86	7.91
351250	LEWJAIN	C1017909	SWW	9.7	71.4	0.36	84.2	8.3	81.0	59.2	4L	94	8.85	8.77
351251	TRES	C1017917	CLUB	8.4	75.4	0.41	88.1	7.3	82.5	50.0	1L	43	8.76	8.64
351252	CREW	C1017951	CLUB	8.3	73.0	0.41	84.4	7.3	79.4	51.0	2L	51	8.76	8.64
351253	HILL 81	C1017954	SWW	9.6	73.6	0.41	85.9	8.1	83.0	56.2	3L	67	8.54	8.44
351254	DUSTY	PI486429	SWW	9.2	71.8	0.40	82.6	7.7	81.8	54.7	4L	68	8.96	8.82
351255	JOHN	PI494095	SWW	8.4	71.4	0.37	83.0	7.8	81.0	56.5	3L	67	8.74	8.61
351256	BATUM	PI495013	HRW	9.0	69.1	0.34	84.2	7.9	73.3	60.5	4M		7.65	7.56
351257	OVESON	OR7996	SWW	9.4	69.5	0.40	76.6	7.7	83.3	57.7	6L	64	8.39	8.24
351258	MALCOLM	ORCW8113	SWW	9.6	69.9	0.39	80.9	8.0	31.0	55.7	2L	66	8.29	8.18
351259	ANDREW	WA6820	HRW	10.3	69.0	0.34	84.3	9.4	70.0	60.8	8M		7.64	7.67
351260		WA7163	SWW	10.5	72.8	0.40	84.3	8.8	66.0	56.4	3M	118	8.14	8.12
351261		WA7166	SWW	8.6	73.4	0.38	86.7	7.7	78.5	57.3	8L	102	8.66	8.52
351262	BASIN		SWW	9.4	68.5	0.38	79.3	8.0	73.0	54.9	2M	74	8.47	8.36
351263	CASHUP		SWW	9.4	67.7	0.37	77.3	8.2	78.0	56.0	3L	92	8.57	8.49
351264	WAMPUM --PULLMAN SPRING--	C1017691	HRS	11.9	70.0	0.42	82.9	11.0	71.0	62.3	3H		8.07	8.23
351265	DIRKWIN	C1017745	SWS	12.5	66.3	0.44	72.5	10.8	69.0	53.9	2M	106	8.26	8.46
351266	MCKAY	C1017903	HRS	12.3	67.2	0.35	80.0	10.5	66.0	61.5	4H		7.76	7.88
351267	OWENS	C1017904	SWS	11.1	68.1	0.35	78.6	9.8	78.0	55.2	3M	118	8.79	8.88
351268	WAVERLY	C1017911	SWS	11.9	69.7	0.38	80.6	10.4	76.0	56.4	2M	117	8.69	8.84
351269	EDWALL	PI477919	SWS	11.0	69.6	0.37	79.7	9.3	72.0	53.3	2M	102	8.67	8.71
351270	PENEWAWA	WA6920	SWS	10.5	69.9	0.43	76.5	9.7	77.0	55.5	8M	110	8.60	8.68
351271	SPILLMAN	WA7075	HRS	13.2	68.2	0.39	79.7	12.1	64.5	60.8	3H		7.47	7.72
351272		ID0266	SWS	11.6	68.6	0.33	82.5	10.0	79.0	56.5	3M	149	8.50	8.61

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

\*350000 are the second set of the 1986 crop.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.



NURSCO 93

LABNUM	VARIETY	IDNO	CLASS	CAVOL	SCSOR	WTIN	NOSCO	BABS	MTIME	LVOL	LVOLC 4/	BCRGR	RMKS
351246	NUGAINES --PULLMAN WINTER--												
351247	DAWS	C1013968	SWW	1225	72.0	345	78	56.8	1.8	735	819	8	
351248	STEPHENS	C1017419	SWW	1245	73.0	336	77	55.9	3.3	700	772	8	
351249	HATTON	C1017596	SWW	1225	68.0	334	73	56.3	2.0	675	747	9	
351250	LEWJAIN	C1017772	HRW	975	50.0	333	70	63.8	3.4	770	733	6	
		C1017909	SWW	1225	68.0	333	69	58.2	2.9	765	807	7	
351251	TRES		CLUB										
351252	CREW	C1017917	CLUB	1285	78.0	363	81	48.0	1.1	515	609	9	
351253	HILL 81	C1017951	CLUB	1295	78.0	343	78	48.5	1.5	545	639	9	
351254	DUSTY	C1017954	SWW	1230	71.0	335	72	56.0	2.2	700	754	8	
351255	JOHN	PI486429	SWW	1165	65.0	322	71	54.1	2.6	740	818	7	
		PI494095	SWW	1170	68.0	354	74	54.0	1.5	710	782	8	
351256	BATUM		HRW										
351257	OVESON	PI495013	HRW	965	50.0	317	74	61.6	2.5	675	743	8	
351258	MALCOLM	OR7996	SWW	1145	65.0	305	72	58.1	4.0	670	748	8	
351259	ANDREW	ORCW8113	SWW	1160	66.0	345	63	53.9	1.5	640	700	9	
		WA6820	HRW	985	55.0	328	69	63.4	4.1	725	700	6	
351260		WA7163	SWW	1095	61.0	339	67	56.9	2.3	730	742	8	
351261			SWW										
351262	BASIN	WA7166	SWW	1265	75.0	340	77	57.7	2.9	655	733	9	
351263	CASHUP		SWW	1270	74.0	319	68	53.1	1.9	705	765	8	
351264	WAMPUM --PULLMAN SPRING--		SWW	1230	74.0	339	74	54.9	2.1	740	788	8	
351265	DIRKWIN	C1017691	HRS	1130	61.0	346	69	64.5	3.2	945	821	3	
		C1017745	SWS	1050	55.0	374	73	64.4	1.0	670	562	8	
351266	MCKAY		HRS	1015	57.0	322	67	64.7	3.5	940	847	2	
351267	OWENS	C1017903	SWS	1195	69.0	351	76	55.2	1.7	860	812	4	
351268	WAVERLY	C1017904	SWS	1105	61.0	348	74	56.5	1.4	830	746	5	
351269	EDWALL	PI477919	SWS	1105	66.0	347	73	53.3	1.7	790	772	7	
351270	PENEWAWA	WA6920	SWS	1150	68.0	333	73	57.9	3.0	850	808	5	
351271	SPILLMAN		HRS	960	52.0	337	68	65.6	3.1	940	748	3	
351272		ID0266	SWS	1145	64.0	334	74	56.2	1.4	845	785	7	

COMMENTS: These varieties were grown out for the purpose of providing material for special research projects, by the Agronomy and Soils Dept., Washington State University. The Western Wheat Quality Laboratory thanks them for their cooperation. As a group, they are well below average in most quality factors. Due to poor growing conditions plots at the Lind Station were not harvested.





NURSCO 94

HARRINGTON, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH 1/	MSCOR	FPROT 1/	MABSC 3/	MTYPE
*351273 HATTON		C1017772	HRW	64.0	72.9	0.46	84.4	9.4	60.7	6M
351274 BATUM		PI495013	HRW	60.0	68.8	0.45	76.4	9.0	61.4	6M
351275 ANDREW		WA6820	HRW	60.7	71.1	0.43	82.9	9.2	58.1	8M
351276 ID092/N7403301		WA7429	HRW	62.6	70.3	0.40	82.8	7.8	60.6	8M
351277 N8200935		6/ WA7522	HRW	61.4	70.2	0.41	82.7	8.8	58.8	8M
351278 CERCO/N7402705		N8305901	HRW	61.6	70.3	0.41	81.9	8.4	61.2	8L
351279 ID0092/HATTON		N8306201	HRW	62.0	68.7	0.42	79.1	8.5	60.3	8L
351280 N7301901/PAHA		6/ N8308203	HRW	63.1	71.8	0.38	86.8	8.2	61.9	7M
351281 HTN SIB/WA7001		N8308802	HRW	63.1	71.2	0.44	81.7	8.4	59.9	8L
351282 FREDRICK/SPRAGUE		WA7523	HRW	60.5	70.6	0.45	80.5	7.8	60.6	8L
351283 K7101348/3/TP-107//N670054/SM7437		6/ N8402301	HRW	60.0	71.6	0.47	80.1	8.7	58.9	8L
351284 CERCO/MCCALL		6/ N8402401	HRW	61.1	69.1	0.45	78.5	9.3	60.4	8M
351285 KAVKAZ/C117271		N8403702	HRW	59.6	70.9	0.48	78.7	8.3	59.2	8L
351286 KAVKAZ/CD17271		N8403703	HRW	60.0	71.2	0.50	78.0	8.2	60.4	8M
351287 N7405001/N7602301		N8407203	HRW	62.2	67.6	0.48	74.7	8.7	59.9	8M
351288 N7001716/K6901676//N7000102		N8401201	HW	61.0	67.9	0.49	73.1	8.9	60.2	8M

\*350000 is the second half of the 1986 crop.



NURSCO 94

HARRINGTON, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
351273	HATTON	C1017772	HRW	62.8	62.4	4.4	840	815	3	
351274	BATUM	P1495013	HRW	63.1	63.1	3.3	835	835	4	
351275	ANDREW	WA6820	HRW	60.0	59.8	4.8	800	788	4	
351276	ID092/N7403301	WA7429	HRW	61.1	62.3	4.4	705	779	6 Q-BCRGR	
351277	N8200935	WA7522	HRW	60.3	60.5	4.5	765	777	4 = Andrew	
351278	CERCO/N7402705	N8305901	HRW	62.3	62.9	6.1	725	762	6 Q-BCRGR	
351279	ID0092/HATTON	N8306201	HRW	61.5	62.0	6.4	715	746	6 Q-BCRGR&FYELD	
351280	N7301901/PAHA	N8308203	HRW	62.8	63.6	4.0	775	825	4 = Batum	
351281	HTN SIB/WA7001	N8308802	HRW	61.0	61.6	5.7	705	742	6 Q-BCRGR	
351282	FREDRICK/SPRAGUE	WA7523	HRW	61.1	62.3	5.5	705	779	7 P-BCRGR	
351283	K7101348/3/TP-107//N670054/SM7437	N8402301	HRW	60.3	60.6	6.2	770	789	3 = Andrew	
351284	CERCO/MCCALL	N8402401	HRW	62.4	62.1	4.7	870	851	4 = Batum	
351285	KAVKAZ/C117271	N8403702	HRW	60.2	60.9	4.5	680	723	8 P-BCRGR	
351286	KAVKAZ/CD17271	N8403703	HRW	61.3	62.1	4.6	700	750	8 P-BCRGR	
351287	N7405001/N7602301	N8407203	HRW	61.3	61.6	5.0	785	804	2 P-FYELD Excell. Baking	
351288	N7001716/K6901676//N7000102	N8401201	HWW	61.8	61.9	7.0	735	741	4 P-FYELD	

1/ Observed Values Corrected to 14% Moisture Basis.5/ Particularly Promising Overall Quality Characteristics.3/ Absorption at 14% Moisture Corrected to 9% Protein.6/ Promising Overall Quality Characteristics.4/ Observed Values Corrected to 9% Protein.

COMMENTS: This nursery was too low in flour protein for meaningful bread baking analysis. Batum was poorer in milling than normal; others were marginal to poor in milling (particularly flour yield). Those footnoted are probably the best in overall quality.

P = Poor' Q = Questionable



NURSCO 95

HARRINGTON, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
*351289	ID00922/N7402703	6/ N8500702	HRW	62.7	70.5	0.44	81.3	8.7	60.6	8M
351290	TX69A450-1//HTN SIB	6/ N8500901	HRW	61.7	73.5	0.47	84.7	9.4	60.6	8L
351291	N8501101	6/ WA7524	HRW	61.6	71.4	0.41	84.3	9.9	60.8	7M
351292	WA6364/N7601202	6/ N8503401	HRW	64.0	70.5	0.45	80.8	8.6	62.8	8M
351293	WA6366/N7501404	6/ N8503503	HRW	64.5	71.9	0.44	82.0	9.0	61.7	8M
351294	WA6366/N7501404	6/ N8503504	HRW	64.2	71.2	0.46	80.3	8.9	62.8	8M
351295	HATTON	C1017772	HRW	64.2	73.0	0.47	82.7	9.6	61.2	7M
351296	BATUM	P1495013	HRW	59.9	72.0	0.45	82.5	9.0	62.4	4M
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					3/			4/		
351289	ID00922/N7402703	N8500702	HRW	62.0	62.3	4.7	800	819	5	Q-FYELD
351290	TX69A450-1//HTN SIB	N8500901	HRW	62.7	62.3	8.0	825	800	5	
351291	N8501101	WA7524	HRW	63.4	62.5	5.2	830	774	5	
351292	WA6364/N7601202	N8503401	HRW	64.1	64.5	5.8	775	800	6	Q-BCRGR&FYELD
351293	WA6366/N7501404	N8503503	HRW	63.4	63.4	5.4	775	775	5	
351294	WA6366/N7501404	N8503504	HRW	64.4	64.5	5.6	800	806	5	
351295	HATTON	C1017772	HRW	63.5	62.9	3.6	800	763	5	
351296	BATUM	P1495013	HRW	64.1	64.1	3.3	805	805	5	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

4/ Observed Values Corrected to 9% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: These wheats were too low in protein to provide meaningful bread baking analysis. All were heavier in bread structure than normal, but were judged in comparison to the check varieties. N8500901 had the best milling properties of the group.

Q = Questionable

\*350000 is the second half of the 1986 crop.



NURSCO 96

HARRINGTON, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						1/		1/	3/	
*351297	N740702/N7602301	N8503704	HRW	64.1	74.1	0.52	82.0	8.9	61.2	8M
351298	N740702/N7602301	N8503706	HRW	63.7	72.1	0.52	78.2	8.5	61.6	8M
351299	CERCO/HATTON	6/N8505401	HRW	61.5	72.6	0.52	79.8	9.9	58.2	8M
351300	ND7412/WA6582	6/N8506001	HRW	61.2	71.1	0.52	77.4	8.2	60.6	7M
351301	N7701501/VH078279	6/N8506401	HRW	61.5	69.8	0.54	74.0	8.8	58.9	8M
351302	N7701501/VH078279	6/N8506402	HRW	60.6	69.2	0.52	73.6	9.7	60.9	8M
351303	HATTON	C1017772	HRW	64.4	72.4	0.50	80.4	8.4	58.8	6M
351304	BATUM	P1495013	HRW	59.4	70.8	0.53	75.7	8.6	61.2	4M
351305	SPRAGUE/LUKE//BARBEE	N8504001	SWW	61.6	73.9	0.52	80.2	7.9	53.2	2M
351306	LEWJAIN	C1017909	SWW	59.9	73.5	0.52	79.3	8.8	54.1	3M

1/ Observed Values Corrected to 14% Moisture Basis.

5/ Particularly Promising Overall Quality Characteristics.

3/ Absorption at 14% Moisture Corrected to 9% Protein.

6/ Promising Overall Quality Characteristics.

4/ Observed Values Corrected to 9% Protein.

\*350000 is the second half of the 1986 crop.





NURSCO 96

HARRINGTON, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
351297	N740702/N7602301	N8503704	HRW	62.8	62.9	5.1	750	756	6 Q-BCRGR	
351298	N740702/N7602301	N8503706	HRW	62.8	63.3	6.1	705	736	6 Q-BCRGR	
351299	CERCO/HATTON	N8505401	HRW	60.8	59.9	6.1	810	754	2	
351300	ND7412/WA6582	N8506001	HRW	61.5	62.3	5.2	690	740	4	
351301	N7701501/VH078279	N8506401	HRW	60.4	60.6	6.2	715	727	5 Q-FYELD&BCRGR	
351302	N7701501/VH078279	N8506402	HRW	63.3	62.6	6.3	825	782	2 Q-FYELD	
351303	HATTON	C1017772	HRW	59.9	60.5	4.4	675	712	4	
351304	BATUM	P1495013	HRW	62.5	62.9	3.1	800	825	4	
351305	SPRAGUE/LUKE//BARBEE	N8504001	SWW	52.8	53.9	2.0	630	696	9 P-MTIME, LVOL&BCRGR	
351306	LEWJAIN	C1017909	SWW	54.6	54.8	3.0	800	812	4	

COMMENTS: This nursery was very low in protein for meaningful bread baking analysis. Wheats were consistently high in flour ash which reduced milling score. Bread crumbs were slightly heavy in the check varieties Hatton and Batum, so others were judged accordingly.

Q = Questionable; P = Poor



NURSCO 97

HARRINGTON, WA

E. DONALDSON

LABNUM	VARIETY	IDNO	CLASS	TWT	FYELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
*351307	N7701501/N7900601	6/ N8508301	HRW	60.5	71.8	0.44	82.8	8.7	60.6	8M
351308	ID5012/WA5866//VPM/MC	6/ N8508403	HRW	62.6	72.8	0.42	85.6	10.7	63.2	3H
351309	N7803101/N74031-B8	6/ N8508701	HRW	60.5	69.1	0.45	77.0	9.8	63.5	8M
351310	CER/HTN//N7905001	6/ N8508903	HRW	61.6	68.6	0.46	76.8	10.5	66.1	6H
351311	CER/HTN//N7905001	6/ WA7525	HRW	62.2	70.1	0.45	80.1	10.4	63.6	8M
351312	N80079/N7900701	N8509402	HRW	64.5	70.3	0.38	83.7	8.8	62.9	8M
351313	HATTON	C1017772	HRW	64.2	69.0	0.44	79.8	8.7	61.9	7M
351314	BATUM	P1495013	HRW	59.9	69.7	0.46	80.2	9.0	62.8	6M
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
351307	N7701501/N7900601	N8508301	HRW	61.0	62.3	5.5	690	771	6Q-BCRGR	
351308	ID5012/WA5866//VPM/MC	N8508403	HRW	65.6	64.9	3.5	865	822	4	
351309	N7803101/N74031-B8	N8508701	HRW	65.0	65.2	5.1	870	882	4Q-MSCOR	
351310	CER/HTN//N7905001	N8508903	HRW	68.3	67.8	6.1	825	794	4Q-MSCOR	
351311	CER/HTN//N7905001	WA7525	HRW	65.7	65.3	5.2	810	785	5	
351312	N80079/N7900701	N8509402	HRW	63.4	64.6	4.5	700	774	8P-BCRGR	
351313	HATTON	C1017772	HRW	62.3	63.6	4.6	705	786	5	
351314	BATUM	P1495013	HRW	63.5	64.5	2.8	785	847	5	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Like the Advanced HRW I & II (NURSCO 095 & 096), this nursery from Harrington, WA is too low in protein to be very meaningful in bread baking analysis. All with the exception of N8509402 appear equal to Hatton and Batum.

Q = Questionable; P = Poor

\*350000 is the second half of the 1986 crop.



NURSCO 98

LABNUM	VARIETY	IDNO	CLASS	TWT	FYIELD	FASH	MSCOR	FPROT	MABSC	MTYPE
						<u>1/</u>		<u>1/</u>	<u>3/</u>	
*351315 ANZA (CWC150)		C1015284	HRS	60.0	71.8	0.41	84.4	9.9	58.9	1M
351316 YECORA ROJO (CWC141)		C1017414	HRS	60.0	71.8	0.43	83.2	10.9	63.8	4H
LABNUM	VARIETY	IDNO	CLASS	BABS	BABSC	MTIME	LVOL	LVOLC	BCRGR	RMKS
					<u>3/</u>			<u>4/</u>		
351315 ANZA (CWC150)		C1015284	HRS	60.5	60.6	1.4	650	656	9	
351316 YECORA ROJO (CWC141)		C1017414	HRS	66.4	65.5	3.3	875	819	4	

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture corrected to 10% Protein.

4/ Observed Values Corrected to 10% Protein.

5/ Particularly Promising Overall Quality Characteristics.

6/ Promising Overall Quality Characteristics.

COMMENTS: Baked in cooperation with Dr. Donald Kasarda and Maur Bean, USDA, ARS, Western Regional Research Center, Albany, CA. The Anza sample is lower in loaf volume than commonly observed. The Yecora Rojo was poorer in bread structure than long term average value.

\*350000 in the second half of the 1986 crop.





NURSCO 99

LABNUM	VARIETY	IDNO	CLASS	TWT lb/bu	WMIST	WPROT	WFN	WDSI	FYELD FASH		MSCOR	FPROT MABS	
									%	%		%	%
351317	6468	4-14	SWW	62.9	9.7	10.4	403	.060	70.7	0.42	79.1	9.2	56.0
351318	1209	4-14	SWW	63.1	9.5	7.5	318	.102	70.1	0.41	79.1	6.8	54.8
351319	1211	4-15	SWW	62.6	9.7	9.0	273	.131	71.5	0.39	83.3	7.7	54.6
351320	6562	4-16	SWW	61.8	9.6	9.2	377	.107	72.6	0.42	83.8	7.9	55.3
351321	6563	4-17	SWW	61.7	9.8	9.2	356	.106	71.0	0.41	81.0	7.8	54.3
351322	6564	4-17	SWW	61.9	9.5	9.6	413	.080	70.5	0.40	79.5	8.1	56.4
351323	6568	4-21	SWW	62.9	9.6	10.1	378	.067	71.4	0.41	82.0	8.5	55.6
351324	6569	4-21	SWW	62.1	9.8	9.1	381	.118	71.9	0.43	81.6	7.8	54.9
351325	6570	4-22	SWW	61.8	10.1	9.4	384	.070	70.1	0.42	80.1	8.1	56.6
351326	6571	4-22	SWW	62.1	9.8	10.0	324	.073	71.5	0.42	82.4	7.8	54.8
351327	6469	4-21	SWW	61.2	10.3	10.1	317	.130	72.0	0.44	82.2	8.5	56.4
351328	6470	4-25	SWW	62.5	9.9	9.4	370	.110	71.9	0.44	81.7	8.1	55.5
351329	6471	4-22	SWW	62.0	9.7	9.7	365	.074	71.1	0.42	81.7	8.3	56.6
351330	6472	4-26	SWW	62.0	10.2	9.7	336	.177	72.3	0.45	81.0	8.2	55.4
351331	6473	4-26	SWW	62.1	9.7	9.7	394	.078	72.3	0.45	81.6	7.7	56.9
351332	6496	4-22	SWW	61.1	10.7	10.2	324	.157	70.7	0.50	76.5	8.2	55.4
351333	6474	4-27	SWW	61.7	10.1	9.7	306	.193	72.2	0.43	82.1	8.4	55.6
351334	6475	4-28	SWW	61.9	9.6	9.8	407	.093	73.0	0.46	81.4	8.2	55.0
351335	8626	4-30	SWW	60.8	10.2	10.3	389	.085	71.7	0.46	80.1	8.5	56.4
351336	8627	4-30	SWW	61.8	9.4	10.7	407	.080	71.3	0.43	80.1	8.6	55.1
351337	8628	4-30	SWW	61.6	9.5	10.1	459	.068	72.4	0.45	80.8	8.8	54.4
351338	8633	4-17	SWW	62.5	9.5	9.1	264	.319	72.7	0.44	82.7	7.7	54.1
351339	6476	4-29	SWW	62.3	10.7	9.4	414	.071	73.0	0.43	81.7	8.5	57.6
351340	1222	5-5	SWW	62.5	9.6	10.1	384	.055	70.9	0.42	81.2	8.6	55.4
351341	1223	5-5	SWW	63.6	9.1	9.9	418	.086	71.2	0.42	79.8	8.6	56.6
351342	1224	5-6	SWW	62.6	9.3	9.7	359	.092	71.1	0.41	82.4	8.4	55.3
351343	6649	5-5	SWW	61.8	9.6	9.5	433	.085	72.2	0.45	81.0	8.6	56.5
351344	6650	5-5	SWW	62.6	9.5	10.1	342	.088	72.0	0.43	81.2	8.7	54.5
351345	8760	5-1	SWW	62.0	9.7	9.9	348	.082	71.4	0.45	80.5	8.3	54.9
351346	6579	5-8	SWW	62.7	9.6	8.9	447	.093	71.2	0.41	80.9	7.7	53.0
351347	6580	5-8	SWW	62.0	9.4	9.0	390	.091	72.2	0.43	82.2	8.2	55.4
351348	6581	5-11	SWW	61.7	10.2	9.6	406	.082	71.3	0.43	82.1	8.2	54.5
351349	6582	5-11	SWW	61.8	9.8	9.6	384	.084	72.1	0.42	81.7	8.2	54.0
351350	3370	5-5	SWW	61.8	10.6	10.2	403	.085	72.5	0.41	84.5	8.5	55.6
351351	3376	5-11	SWW	62.0	9.7	10.3	413	.080	71.8	0.43	81.0	8.5	55.5



NURSCO 99

LABNUM	VARIETY	IDNO	CLASS	FABS	FPEAK	FSTAB	CODI	CAVOL	SCSOR	WTIN	NOSCO	RMKS
						Min.		cc		%		
351317 6468		4-14	SWW	54.8	4.0	8.5	8.57	1220	69.0	345	67	
351318 1209		4-14	SWW	53.3	1.3	4.0	9.02	1310	79.0	346	75	
351319 1211		4-15	SWW	54.1	2.3	5.1	8.72	1270	70.0	340	73	
351320 6562		4-16	SWW	54.1	1.8	2.8	8.74	1250	73.0	349	73	
351321 6563		4-17	SWW	53.3	1.5	4.1	8.80	1225	70.0	349	71	
351322 6564		4-17	SWW	53.2	2.1	5.0	8.81	1280	76.0	339	70	
351323 6568		4-21	SWW	55.1	1.8	3.7	8.64	1245	73.0	353	76	
351324 6569		4-21	SWW	55.1	1.8	3.0	8.71	1245	71.0	358	78	
351325 6570		4-22	SWW	53.9	2.1	4.3	8.59	1230	71.0	357	75	
351326 6571		4-22	SWW	55.3	2.0	3.9	8.41	1200	70.0	359	74	
351327 6469		4-21	SWW	55.0	2.6	4.7	8.52	1245	73.0	358	75	
351328 6470		4-25	SWW	54.0	2.3	5.7	8.72	1170	68.0	340	73	
351329 6471		4-22	SWW	53.7	2.0	4.4	8.81	1240	72.0	345	76	
351330 6472		4-26	SWW	54.8	2.3	3.7	8.74	1195	68.0	341	75	
351331 6473		4-26	SWW	54.7	2.4	4.4	8.77	1220	70.0	343	74	
351332 6496		4-22	SWW	54.5	2.9	3.7	8.71	1315	76.0	352	73	
351333 6474		4-27	SWW	54.4	1.5	3.9	8.51	1325	72.0	349	74	
351334 6475		4-28	SWW	54.4	1.7	3.5	8.62	1295	72.0	352	74	
351335 8626		4-30	SWW	55.3	1.7	4.1	8.67	1285	74.0	352	74	
351336 8627		4-30	SWW	54.9	2.2	3.2	8.46	1240	68.0	356	74	
351337 8628		4-30	SWW	54.2	1.8	4.4	8.54	1245	72.0	354	74	
351338 8633		4-17	SWW	54.9	1.8	3.0	8.75	1260	73.0	358	75	
351339 6476		4-29	SWW	54.6	1.8	4.3	8.51	1275	72.0	340	74	
351340 1222		5-5	SWW	54.8	2.3	4.7	8.62	1245	71.0	345	72	
351341 1223		5-5	SWW	55.6	1.7	5.7	8.76	1250	71.0	344	75	
351342 1224		5-6	SWW	54.1	1.7	5.0	8.69	1270	72.0	350	75	
351343 6649		5-5	SWW	56.0	1.5	2.7	8.76	1240	71.0	364	77	
351344 6650		5-5	SWW	54.8	2.1	3.6	8.59	1280	73.0	348	75	
351345 8760		5-1	SWW	53.9	1.6	4.0	8.80	1220	70.0	366	76	
351346 6579		5-8	SWW	52.4	1.4	3.7	8.79	1255	71.0	339	75	
351347 6580		5-8	SWW	54.2	1.9	4.5	8.67	1300	78.0	348	76	
351348 6581		5-11	SWW	55.0	2.1	3.3	8.70	1285	77.0	323	75	
351349 6582		5-11	SWW	52.4	1.9	5.2	8.77	1280	76.0	338	75	
351350 3370		5-5	SWW	55.5	1.5	4.4	8.81	1255	74.0	333	74	
351351 3376		5-11	SWW	54.9	2.9	3.4	8.71	1240	75.0	351	75	



LABNUM	VARIETY	IDNO	CLASS	TWT lb/bu	WMIST	WPROT	WFN	WDSI	FYELD %	FASH <sup>1</sup> / %	MSCOR <sup>1</sup> / %	FPROT <sup>1</sup> / %	MABS
351352 3375		5-12	SWW	62.1	9.9	9.8	375	.089	72.7	0.41	84.3	8.6	55.5
351353 8797		5-9	SWW	62.6	10.2	10.6	372	.099	71.8	0.42	82.0	8.7	56.3
351354 2267		5-13	SWW	61.2	10.6	10.3	386	.086	72.2	0.42	82.5	8.9	56.6
351355 3378		5-15	SWW	61.6	10.1	9.9	416	.080	71.4	0.40	82.1	8.6	54.9
351356 6584		5-20	SWW	62.2	9.6	10.2	433	.082	71.7	0.41	83.7	8.7	55.9
351357 6583		5-20	SWW	63.0	9.7	9.7	400	.089	71.6	0.40	80.3	8.2	54.5
351358 3385		5-20	SWW	62.0	10.0	10.0	396	.084	72.3	0.42	81.7	8.8	56.4
351359 6590		5-25	SWW	61.7	10.1	9.7	406	.082	72.6	0.42	82.5	8.6	54.5
351360 6588		5-24	SWW	62.1	9.8	9.2	386	.069	69.8	0.40	79.9	8.2	55.6
351361 6587		5-23	SWW	62.7	9.6	10.6	413	.078	73.5	0.43	83.1	9.1	55.1
351362 6585		5-21	SWW	62.2	10.0	10.0	363	.088	71.7	0.40	83.6	8.6	56.5
351363 1229		5-21	SWW	62.4	10.0	9.5	433	.096	71.6	0.40	83.9	8.4	54.4
351364 6586		5-22	SWW	62.0	10.0	10.0	226	.648	72.7	0.42	84.0	8.7	56.1
351365 8068		5-23	SWW	61.4	9.6	10.3	424	.095	72.7	0.42	83.5	8.5	53.9
351366 8067		5-23	SWW	62.0	10.4	9.8	352	.171	72.6	0.41	83.0	8.5	54.9
351367 8069		5-20	SWW	62.1	10.3	9.9	392	.094	72.7	0.42	84.4	8.7	54.5
351368 3388		6-1	SWW	62.2	9.9	8.7	409	.089	73.2	0.40	85.2	8.0	54.5
351369 3390		6-1	SWW	61.8	9.7	9.8	347	.099	72.9	0.42	83.9	8.2	54.0
351370 7967		5-29	SWW	61.7	9.7	9.5	414	.086	72.8	0.42	83.2	8.2	55.3
351371 7968		5-27	SWW	62.0	9.3	10.1	378	.085	72.3	0.41	82.7	8.5	54.8





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LABNUM	VARIETY	IDNO	CLASS	FABS	FPEAK	FSTAB	CODI	CAVOL	SCSOR	WTIN	NOSCO	RMKS
						Min.		cc		g		
351352 3375		5-12	SWW	54.5	1.7	3.6	8.90	1275	75.0	341		76
351353 8797		5-9	SWW	56.5	1.6	3.0	8.77	1255	74.0	357		76
351354 2267		5-13	SWW	55.7	2.4	4.3	8.80	1260	75.0	343		75
351355 3378		5-15	SWW	52.4	2.3	4.5	8.74	1240	75.0	346		76
351356 6584		5-20	SWW	54.0	2.5	4.2	8.84	1205	71.0	357		75
351357 6583		5-20	SWW	53.8	3.0	4.6	8.80	1280	75.0	338		75
351358 3385		5-20	SWW	55.0	2.0	2.9	8.80	1260	74.0	355		76
351359 6590		5-25	SWW	54.6	2.0	4.0	8.70	1265	72.0	353		75
351360 6588		5-24	SWW	53.9	1.6	3.8	8.67	1265	73.0	358		75
351361 6587		5-23	SWW	55.1	3.0	4.4	8.86	1210	69.0	352		73
351362 6585		5-21	SWW	54.1	2.1	4.5	8.75	1275	74.0	351		74
351363 1229		5-21	SWW	54.2	2.1	4.3	8.87	1250	70.0	334		74
351364 6586		5-22	SWW	54.5	2.2	2.9	8.87	1230	71.0	338		74
351365 8068		5-23	SWW	54.1	1.6	3.5	8.87	1270	75.0	339		74
351366 8067		5-23	SWW	54.4	2.0	3.2	8.74	1225	71.0	335		74
351367 8069		5-20	SWW	54.2	1.6	3.6	8.96	1245	74.0	341		75
351368 3388		6-1	SWW	54.2	1.4	2.7	8.81	1250	71.0	333		74
351369 3390		6-1	SWW	53.8	1.7	3.8	8.70	1235	68.0	329		73
351370 7967		5-29	SWW	54.8	2.1	2.1	8.74	1190	70.0	348		75
351371 7968		5-27	SWW	54.3	1.9	3.2	8.65	1190	68.0	340		73

SAS						
N Obs	Variable	N	Minimum	Maximum	Mean	Std Dev
55	TWT	55	60.80	63.60	62.08	0.52
	WMIST	55	9.10	10.70	9.84	0.36
	WPROT	55	7.50	10.70	9.74	0.55
	FYELD	55	69.80	73.50	71.87	0.82
	FASH	55	0.39	0.50	0.42	0.02
	MSCOR	55	76.50	85.20	81.88	1.63
	FPROT	55	6.80	9.20	8.34	0.41
	MABS	55	53.00	57.60	55.33	0.92
	FABS	55	52.40	56.50	54.42	0.82
	FPEAK	55	1.30	4.00	2.02	0.49
	FSTAB	55	2.10	4.50	4.01	0.98
	CODI	55	8.41	9.02	8.72	0.12
	CAVOL	55	1170.00	1325.00	1250.55	32.28
	SCSOR	55	68.00	79.00	72.29	2.63
	WTIN	55	323.00	366.00	346.76	9.02
	NOSCO	55	67.00	78.00	74.35	1.69
	WFN	55	226.00	459.00	378.31	45.43
	WDSI	55	0.06	0.65	0.11	0.08

1/ Observed Values Corrected to 14% Moisture Basis.

3/ Absorption at 14% Moisture Corrected to 8% Protein.

4/ Observed Values Corrected to 8% Protein.

COMMENTS: These sample analyses were conducted in cooperation with U.S. Wheat Associates, Inc., as the fifth set of seasonal western white cargo sampling project. Primary objective is to determine the degree of uniformity of wheat shipments throughout the marketing year.







